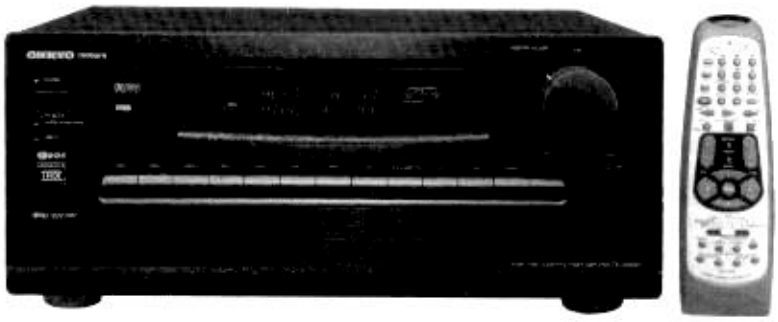
Ref. No.3566

ONKYO® SERVICE MANUAL

AUDIO VIDEO CONTROL
TUNER AMPLIFIER
MODEL TX-DS939



Black and Golden models

BUDN,BUDT,GUDT	120V AC,60Hz
BUP,BUPB,BUPT,GUPT	230V AC,50Hz
BUGK,GUGK	220V AC,50Hz

SAFETY-RELATED COMPONENT WARNING!!

COMPONENTS IDENTIFIED BY MARK ⚠ ON THE SCHEMATIC DIAGRAM AND IN THE PARTS LIST ARE CRITICAL FOR RISK OF FIRE AND ELECTRIC SHOCK. REPLACE THESE COMPONENTS WITH ONKYO PARTS WHOSE PART NUMBERS APPEAR AS SHOWN IN THIS MANUAL.

MAKE LEAKAGE-CURRENT OR RESISTANCE MEASUREMENTS TO DETERMINE THAT EXPOSED PARTS ARE ACCEPTABLY INSULATED FROM THE SUPPLY CIRCUIT BEFORE RETURNING THE APPLIANCE TO THE CUSTOMER.

ONKYO®
AUDIO COMPONENTS

SPECIFICATIONS

AMPLIFIER SECTION

Power output: Stereo mode (Surround mode: OFF)
L and R FRONT SPEAKERS
120 watts per channel min. RMS. at 8 ohms; both channels driven between 20 Hz and 20,000 Hz with no more than 0.05 % total harmonic distortion.
Continuous power 2 × 160 Watt at 6ohms (DIN)
Surround mode
LEFT, RIGHT, CENTER, LEFT SURROUND and RIGHT SURROUND
100 watts per channel min. RMS at 8 ohms, three channels driven from 20 Hz to 20,000 Hz with no more than 0.08% total harmonic distortion.

IM distortion: 0.05% at rated power (L and R FRONT in Stereo mode)
Damping factor: 60 at 8 ohms (L and R)
Input sensitivity/impedance: Phono: 2.5 mV/50 kohms
Line (CD, TAPE-1 and - 2, VIDEO-1 ~ -7): 200 mV/50 kohms
Amp in (LEFT, RIGHT, CENTER, LEFT SURROUND and RIGHT SURROUND): 1 V/50 kohms (100 W output)
Output level/impedance: OUTPUT (REC) (TAPE-1 and -2): 200 mV/2.2 kohms
OUT (VIDEO 1~ 3, 7): 200 mV/2.2 kohms
PRE OUT (LEFT, RIGHT, CENTER, LEFT SURROUND, RIGHT SURROUND, SUBWOOFER): 1 V/470 ohms
Phono overload: 120 mV RMS. at 1,000 Hz, 0.5 % THD.
Frequency response: 20 to 30,000 Hz, ±0.5 dB (Line in, Stereo mode)
RIAA deviation: 20 to 20,000 Hz, ±0.8 dB
Tone control: BASS: ±10 dB at 50 Hz
MIDBASS: ±10 dB at 300 Hz
TREBLE: ±10 dB at 10,000 Hz
Signal-to-noise ratio: PHONO: 80 dB (IHF A, 5mV input)
Line: 100 dB (IHF A)
Muting: –∞dB

VIDEO SECTION

Television format: NTSC (U.S. and Canadian models)
NTSC/PAL (Other models)
Input sensitivity/impedance
IN (VIDEO-1~7) VIDEO (Composite): 1Vp-p/75 ohms
IN (VIDEO-1~7) S-VIDEO (Y signal): 1Vp-p/75 ohms
IN (VIDEO-1~7) S-VIDEO (C signal): 0.28Vp-p/75 ohms
Output level/impedance
OUT (VIDEO-1~ 3, 7, MONITOR OUT) VIDEO (Composite): 1Vp-p/75 ohms
OUT (VIDEO-1~ 3, 7, MONITOR OUT) S-VIDEO (Y signal): 1Vp-p/75 ohms
OUT (VIDEO-1~3, 7, MONITOR OUT) S-VIDEO (C signal): 0.28Vp-p/75 ohms

DIGITAL SECTION

Digital input sampling frequency: 32, 44.1, 48 kHz
Input sensitivity/impedance:
Coaxial: 0.5 Vpp/75 ohms
AC-3RF: 0.4 Vpp/75 ohms

TUNER SECTION

FM:

Tuning range: 87.50 – 108.00 MHz (50 kHz steps)
Usable sensitivity: Mono: 11.2 dBf, 1.0 µV (75 ohms)
Stereo: 17.2 dBf, 2.0 µV (75 ohms)
50-dB Quieting sensitivity: Mono: 17.2 dBf, 2.0 µV (75 ohms)
Stereo: 37.2 dBf, 20 µV (75 ohms)
Capture ratio: 1.5 dB
Image rejection ratio: 85 dB
IF rejection ratio: 90 dB
Signal-to-noise ratio: Mono: 76 dB
Stereo: 70 dB
Alternate channel Attenuation: 55 dB
AM suppression ratio: 50 dB
Harmonic distortion: Mono: 0.1%
Stereo: 0.2%
Frequency response: 30 – 15,000 Hz ± 1.0 dB
Stereo separation: 45 dB at 1kHz
30 dB between 100 and 10,000 Hz
Muting level: 17.2 dBf

AM:

Tuning: U.S. and Canadian models: 530 to 1710 kHz (10-kHz steps)
Others models: 522 to 1611 kHz (9-kHz steps)
Usable sensitivity: 30 µV
Image rejection ratio: 40 dB
IF rejection ratio: 40 dB
Signal-to-noise ratio: 40 dB
Harmonic distortion: 0.7%

GENERAL

Power supply: U.S. and Canadian models: AC120 V, 60 Hz
Other models: AC 230 V, 50 Hz
Dimensions (W x H x D): 435 × 195 × 456 mm (17-1/8˝× 7-11/16˝× 17-15/16˝)
Weight: 21 kg (46.3 lbs.)

REMOTE CONTROL RC-310M

Transmitter: Infrared
Signal range: Approx. 5 meters (16 ft.)
Power supply: Two AA batteries (1.5 V × 2)

Specifications and features are subject to change without notice.

SERVICE GUIDE

1. Replacing the fuses

This symbol located near the fuse indicates that the fuse used is fast operating type. For continued protection against fire hazard, replace with same type fuse. For fuse rating refer to the marking adjacent to the symbol.

Ce symbole indique que le fusible utlise est a rapide. Pour une protection permanente, n'utiliser que des fusibles de meme type. Ce darnier est indique la qu le present symbol est appose.

CIRCUIT NO.	PART NO.	DESCRIPTION
F9001	252196	⚠ 12A-U/T-314, Primary fuse <D/T>
F9002	252079	⚠ 6.3A-SE-EAK, Primary fuse <P/K>
F9003	252075	⚠ 2.5A-SE-EAK, Primary fuse <P>

NOTE: <D>: 120V model only <P>: 230V model only
<T>: Taiwanese model only <K>: Korean model only

2. To Initialize the unit

This device employs a microprocessor to perform various functions and operations. If interference generated by an external power supply, radio wave, or other electrical source results in accident which causes the specified operations and functions to operate abnormally.

To perform a result, please follow the procedure below.

1. Turn POWER button on.
2. While holding down the CD button, press the VIDEO-1 button.
3. After "clear" is displayed, the preset memory and each mode stored in the memory, such as surround, are initialized and will return to the factory settings.

3. Safety-check out

(Only U.S.A. model)

After correcting the original service problem, perform the following safety check before releasing the set to the customer.

Connect the insulating-resistance tester between the plug of power supply cord and the screw on the back panel.

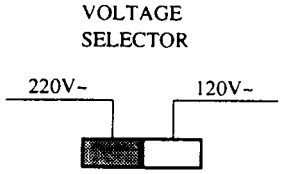
Specifications: 3.3 Mohm±10% at 500V.

4. Change of voltage

Worldwide models are equipment with a voltage selector to conform with local power supplies. This switch is located on the back panel.

Be sure to set this switch to match the voltage of the power supply in your area before turning the power switch on.

This switch is set to 220V at the factory. Voltage is changed by sliding the groove in the switch with the screwdriver to the right or left. Confirm that the switch has been moved all the way to the right or left before turning the power switch on.



5. Memory preservation

This unit does not require memory preservation batteries.

A built-in memory power back-up system preserves contents of the memory during power failures and even when the unit is unplugged.

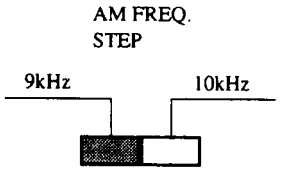
The unit must be plugged in and the power switch turned on and off once in order to charge the back-up system. Note that since this is not a permanent memory, the power switch must be turned on and off a few times each month the keep the back-up system operative.

The period of the time during which memory contents are preserved after power has last been turned off varies depending on climate and placement of the unit. On the average, memory contents are protected over a period of 3 to 4 weeks (a minimum of 2 weeks) after the last time power has been turned off. This period is shorted when the unit is exposed to very high humidity or used in an area with an extremely humid climate.

6. Setting the tuning step frequency

Worldwide models are equipped with a step band selector switch. This switch is located on the back panel. This switch is set to 9 kHz at the factory, but may have to be reset to 10 kHz depending on the area where the unit is used.

	AM band step
Europe:	9 kHz
U.S.A.:	10 kHz



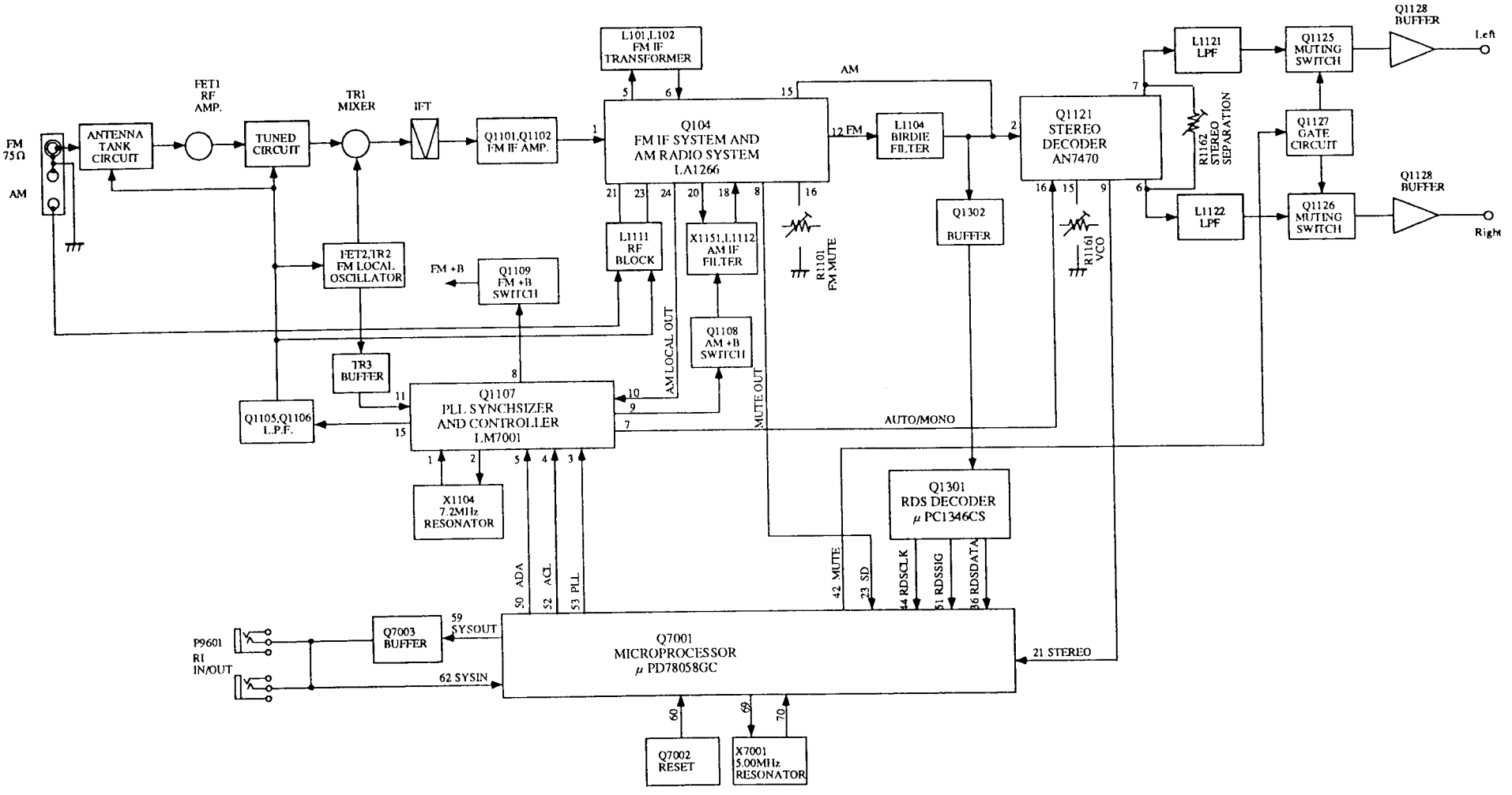
7. Changing the band step

With the exception of the worldwide models, a tuning step selector switch is not provided. When you change the band step, change the parts as shown below.

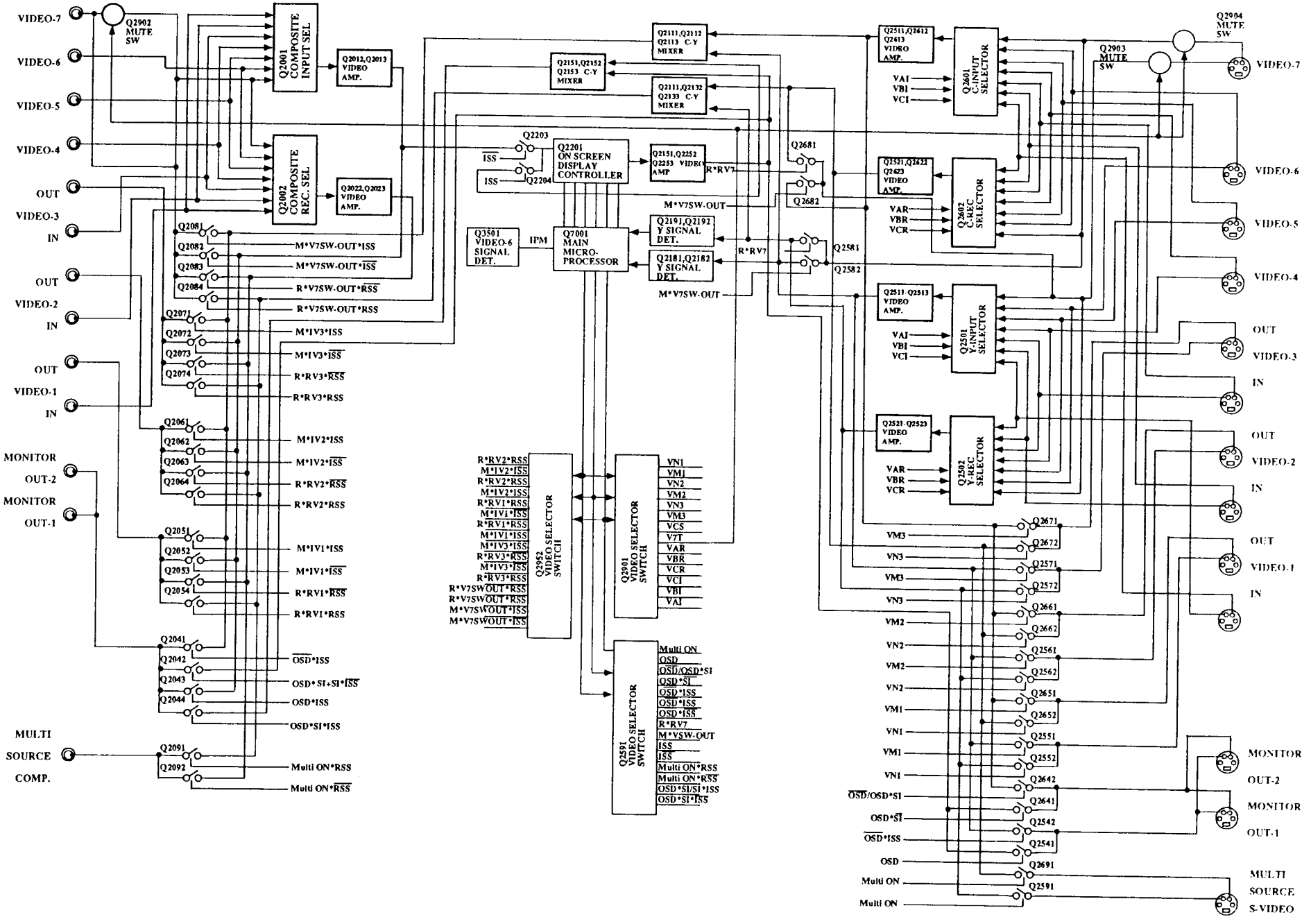
	To 10 kHz	To 9 kHz
R7049,R7051	Remove	10 kohm
R7050,R7052	10 kohm	Remove

BLOCK DIAGRAM

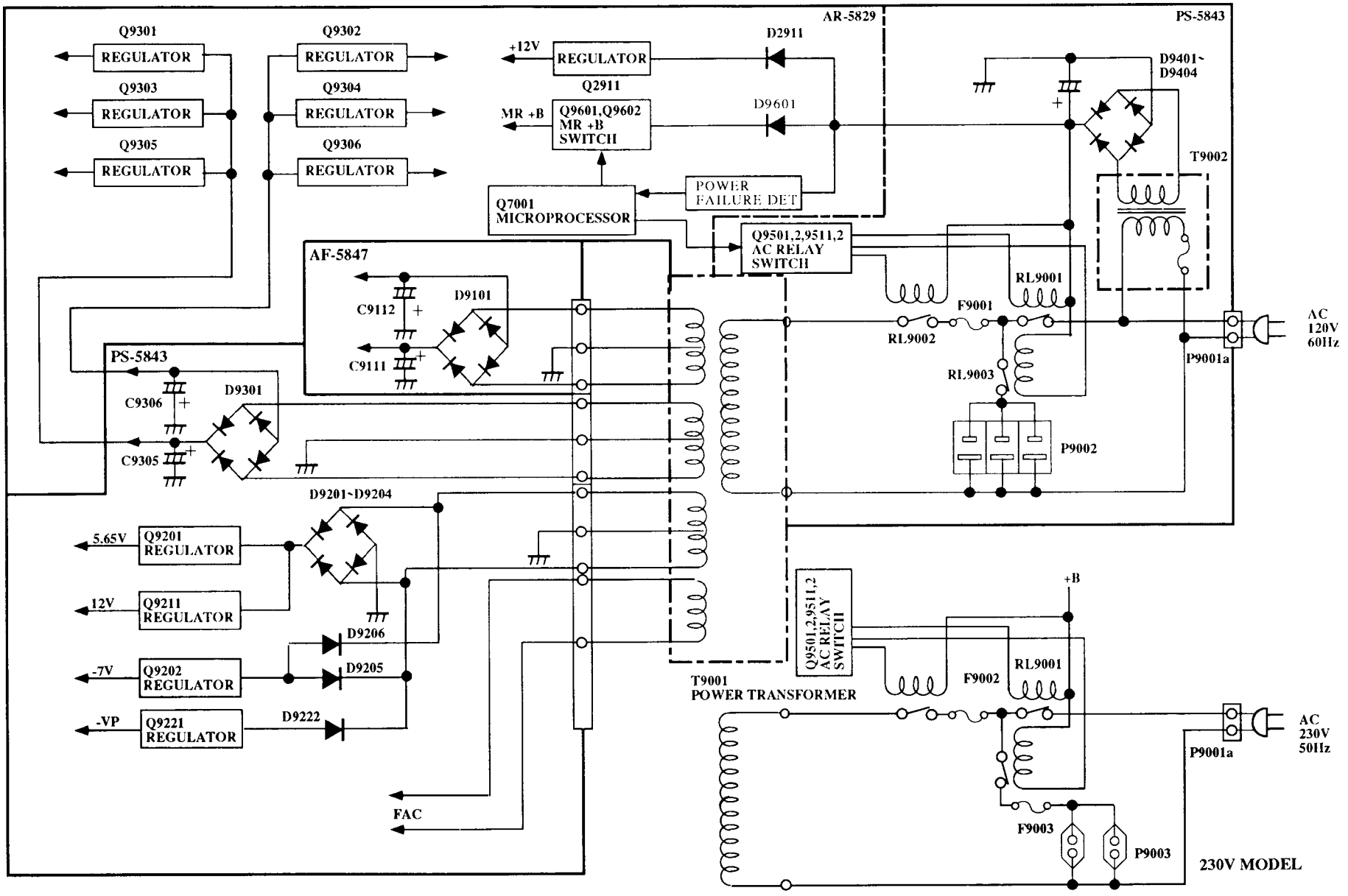
TUNER SECTION



VIDEO SECTION

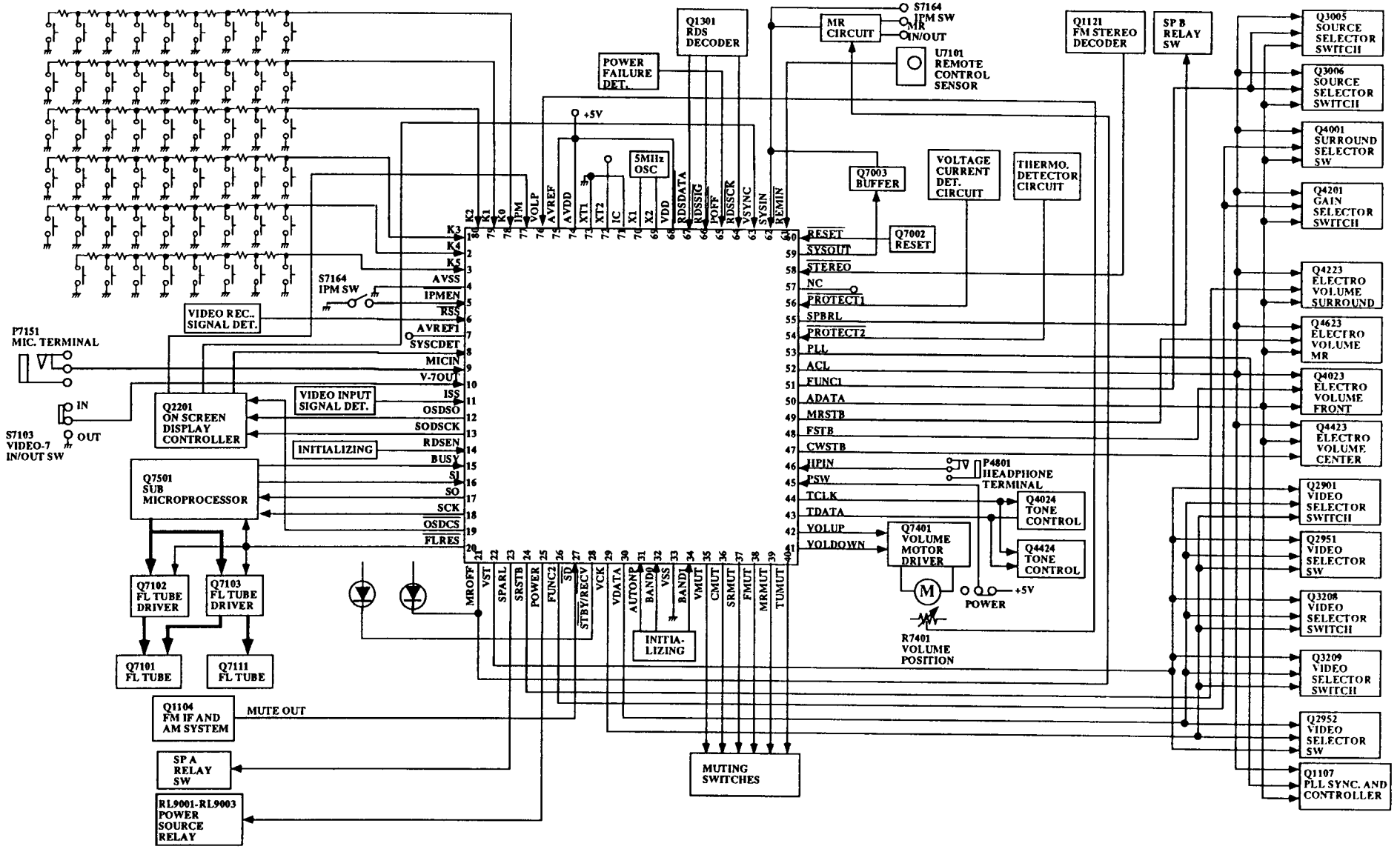


POWER SUPPLY SECTION



MICROPROCESSOR-CONNECTION DIAGRAM

MAIN MICROPROCESSOR


Q1301 RDS DECODER
S7164 IPM SW MR IN/OUT
MR CIRCUIT
U7101 REMOTE CONTROL SENSOR
Q1121 FM STEREO DECODER
SP B RELAY SW
POWER FAILURE DET.
+5V
5MHz OSC
Q7003 BUFFER
VOLTAGE CURRENT DET. CIRCUIT
THERMO. DETECTOR CIRCUIT
Q7002 RESET
Q3005 SOURCE SELECTOR SWITCH
Q3006 SOURCE SELECTOR SWITCH
Q4001 SURROUND SELECTOR SW
Q4201 GAIN SELECTOR SWITCH
Q4223 ELECTRO VOLUME SURROUND
Q4623 ELECTRO VOLUME MR
Q4023 ELECTRO VOLUME FRONT
Q4423 ELECTRO VOLUME CENTER
Q2901 VIDEO SELECTOR SWITCH
Q2951 VIDEO SELECTOR SW
Q3208 VIDEO SELECTOR SWITCH
Q3209 VIDEO SELECTOR SWITCH
Q2952 VIDEO SELECTOR SW
Q1107 PLL SYNC. AND CONTROLLER
S7164 IPM SW
VIDEO REC.. SIGNAL DET.
P7151 MIC. TERMINAL
IN
S7103 VIDEO-7 IN/OUT SW
OUT
Q2201 ON SCREEN DISPLAY CONTROLLER
VIDEO INPUT SIGNAL DET.
INITIALIZING
Q7501 SUB MICROPROCESSOR
Q7102 FL TUBE DRIVER
Q7103 FL TUBE DRIVER
Q7101 FL TUBE
Q7111 FL TUBE
Q1104 FM IF AND AM SYSTEM
MUTE OUT
SP A RELAY SW
RL9001-RL9003 POWER SOURCE RELAY
MUTING SWITCHES
INITIA-LIZING
Q7401 VOLUME MOTOR DRIVER
R7401 VOLUME POSITION
P4801 HEADPHONE TERMINAL
Q4024 TONE CONTROL
Q4424 TONE CONTROL
POWER
+5V
K2 K1 K0 IPM VOLP AVREF AVDD XT1 XT2 IC X1 X2 VDD RDSDATA RDSSIG RDSSCK VSYNC SYSIN REMIN
K3 K4 K5 AVSS IPMEN RSS AVREF1 SYSCDET MICIN V-7OUT ISS OSDSO SODSCK RDSEN BUSY SI SO SCK OSDCS FLRES
RESET SYSOUT STEREO NC PROTECT1 SPBRL PROTECT2 PLL ACL FUNC1 ADATA MRSTB FSTB CWSTB IPIN PSW TCLK TDATA VOLUP VOLDOWN
MROFF VST SPARL SRSTB POWER FUNC2 SD STBY/RECV VCK VDATA AUTONP BAND2 VSS BAND1 VMUT CMUT SRMUT FMUT MRMUT TUMUT

TX-DS939

MICROPROCESSOR-TERMINAL DESCRIPTION

PIN NO.	TERMINAL	DESCRIPTION
1	K3	Operation key connection terminal
2	K4	Operation key connection terminal
3	K5	Operation key connection terminal
4	AVSS	Ground terminal for A/D converter
5	IPMEN	Detector input terminal for operation of IMP
6	RSS	S signal detector input terminal from recording selector switch Q2502.
7	AVREF1	Reference voltage input terminal for D/A converter.
8	SYNCDET	Judgment input terminal for external synchronizing of OSD. External synchronizing when this terminal is the high level.
9	MICIN	Input terminal to detect the insertion of microphone for measurement The unit becomes the analyzer setup mode when the plug of microphone is inserted.
10	V-7OUT	IN/OUT switching input terminal for VIDEO-7 terminal This terminal becomes the high level when VIDEO-7 switch is set to IN.
11	ISS	S signal detector input terminal from input selector switch Q2501.
12	OSDSO	Output terminal to connect to the terminal SIN for OSD controller IC Q2201.
13	OSDSCK	Clock output terminal to connect to the terminal SCLK for OSD controller Q2201.
14	RDSEN	Initializing terminal for RDS broadcast
15	BUSY	Busy signal input terminal for transfer from sub microprocessor
16	SI	Data input terminal for transfer from sub microprocessor
17	SO	Data output terminal for transfer to sub microprocessor
18	SCK	Clock output terminal for transfer to sub microprocessor
19	OSDCS	Chip select output terminal to connect to terminal CS for OSD controller.
20	FLRES	Reset signal output terminal.
21	MROFF	Multi room indicator and control output terminal
22	VST	Output terminal to connect to the terminals ST of function switches for video selector
23	SPARL	Speaker A relay control output terminal
24	SRSTB	Strobe output terminal to connect to the terminal STB of electro. volume
25	POWER	Power source control output terminal
26	FUNC2	Output terminal to connect to the terminal ST of function switches to switch configuration.
27	SD	Broadcast detection input terminal. L level when broadcast is received.
28	STBY/RECV	STAND-BY or RECEIVED indicator control output terminal
29	VCK	Clock output terminal for function switches to switch video
30	VDATA	Data output terminal for function switches to switch video
31	AUTONP	Initializing input terminal for NTSC/PAL selector
32	BAND0	Initializing input terminal for band region.
33	VSS	Ground terminal
34	BAND1	Initializing input terminal for band region.
35	WMUT	Muting output terminal for subwoofer amplifier
36	CMUT	Muting output terminal for center amplifier
37	SRMUT	Muting output terminal for surround amplifier
38	FMUT	Muting output terminal for front amplifier
39	MRMUT	Muting output terminal for MR amplifier
40	TUMUT	Muting output terminal for tuner
41	VOLDOWN	Volume control output terminal
42	VOLUP	Volume control output terminal
43	TDATA	Data output terminal to connect to the terminal DI of electro volume for tone control
44	TCLK	Clock output terminal to connect to the terminal CLK of electro volume for tone control
45	PSW	Power switch input terminal.
46	HPIN	Input terminal to detect the connection of headphone.

Operation	42	41
Stop	H	H
VOLUME UP	H	L
VOLUME DOWN	L	H

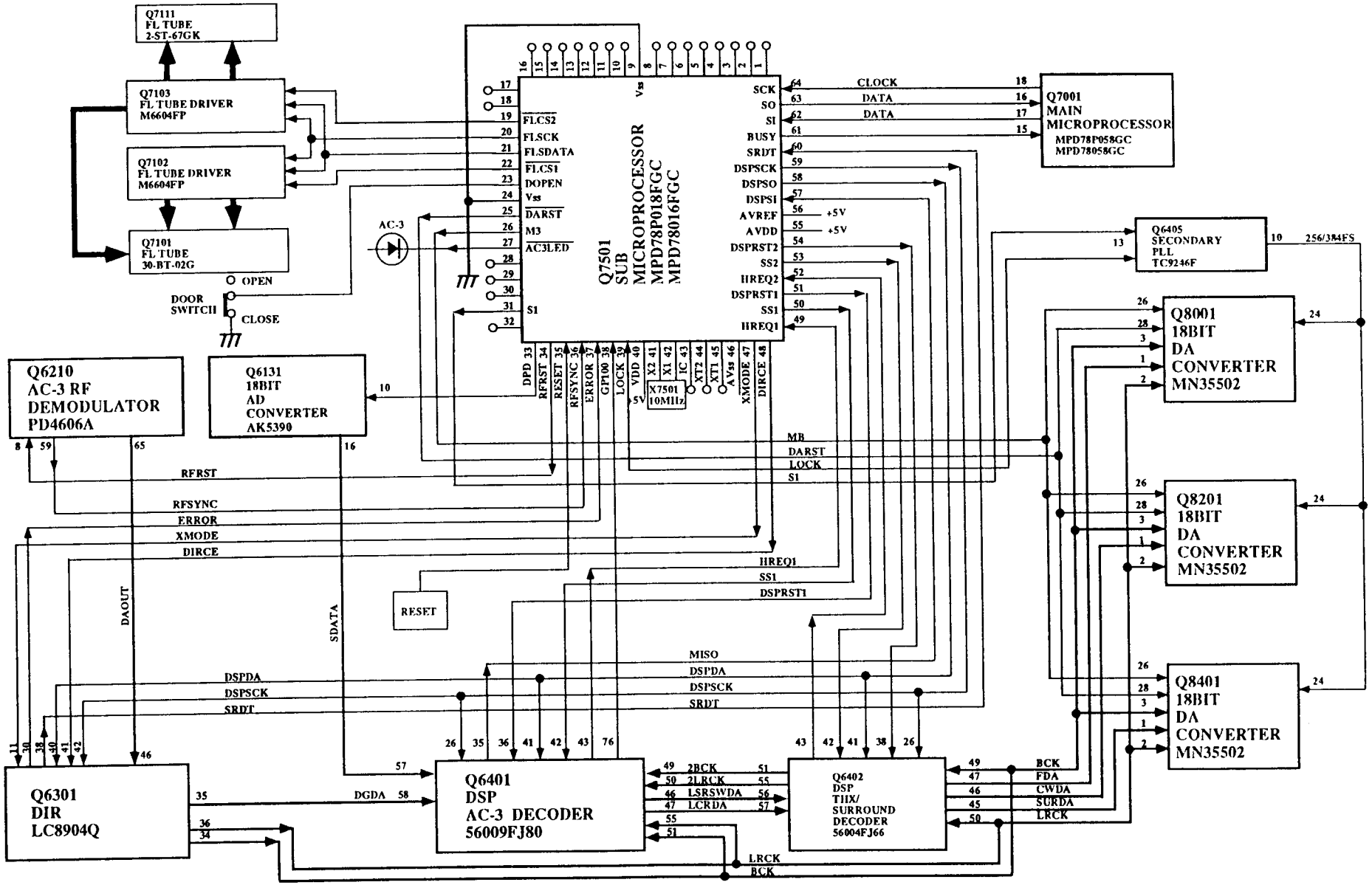
PIN NO.	TERMINAL	DESCRIPTION
47	CWSTB	Strobe output terminal to connect to the terminal STB of electro volume
48	FSTB	Strobe output terminal to connect to the terminal STB of electro volume
49	MRSTB	Strobe output terminal to connect to the terminal STB of electro volume
50	ADATA	Data output terminal
51	FUNC1	Strobe output terminal
52	ACL	Clock output terminal
53	PLL	Output terminal TOY connect the terminal CE of PLL IC
54	PROTECT2	Thermal detector input terminal
55	SPBRL	Speaker B relay control output terminal
56	PROTECT1	Detector input terminal of protection circuit for abnormal voltage or current.
57		Not used
58	STEREO	Stereo broadcast detection input terminal
59	SYSOUT	System code output terminal
60	RESET	System reset input terminal
61	REMIN	Remote control signal input terminal
62	SYSIN	System code input terminal
63	VSYNC	Vertical synchronizing signal input terminal
64	RDSSCK	Clock input terminal from RDS decoder
65	POFF	Power failure detection input terminal
66	RDSSIG	Detector input terminal of RDS broadcast
67	RDSDATA	Data input terminal from RDS decoder
68	VDD	Positive power supply terminal
69	X2	Ceramic oscillator connection terminal for main system clock
70	X1	Connect 5MHz ceramic resonator across the terminals X1 and X2.
71	IC	Internal connection terminal
72	XT2	Crystal connection terminal for sub system
73	XT1	Crystal connection terminal for sub system
74	AVDD	Power supply terminal for A/D converter
75	AVREF	Reference voltage input terminal for A/D converter
76	VOLP	Position detector input terminal for Master volume
77	IPM	Operation detection input terminal for Intelligent power management
78	K0	Operation switch connection terminal
79	K1	Operation switch connection terminal
80	K2	Operation switch connection terminal

Initializing input

<table>
<tr><th>Function</th><th>Descriptions</th></tr>
<tr><td>BAND0
BAND1</td><td>Initializing terminal to set the region of FM/AM band.
<table>
<tr><th>BAND0</th><th>BAND1</th><th>Region</th><th>Band</th><th>Frequency range</th><th>Channel space</th></tr>
<tr><td rowspan="2">0</td><td rowspan="2">0</td><td>U.S.A</td><td>FM</td><td>87.50-108.00MHz</td><td>50kHz</td></tr>
<tr><td>model</td><td>AM</td><td>530-1710kHz</td><td>10kHz</td></tr>
<tr><td rowspan="2">0</td><td rowspan="2">1</td><td>Japanese</td><td>FM</td><td>76.0-90MHz</td><td>100kHz</td></tr>
<tr><td>model</td><td>AM</td><td>522-1629kHz</td><td>9kHz</td></tr>
<tr><td rowspan="2">1</td><td rowspan="2">0</td><td>Worldwide</td><td>FM</td><td>87.50-108.00MHz</td><td>50kHz</td></tr>
<tr><td>model</td><td>AM</td><td>531-1602kHz</td><td>9kHz</td></tr>
<tr><td rowspan="2">1</td><td rowspan="2">1</td><td>European</td><td>FM</td><td>87.50-108.00MHz</td><td>50kHz</td></tr>
<tr><td>model</td><td>AM</td><td>522-1611kHz</td><td>9kHz</td></tr>
</table></td></tr>
<tr><td>RDSEN</td><td>Initializing terminal to set the RDS function.
<table>
<tr><th>RDSEN</th><th>Function</th></tr>
<tr><td>0</td><td>Don't use</td></tr>
<tr><td>1</td><td>Use</td></tr>
</table></td></tr>
<tr><td>AUTONP</td><td>Initializing terminal to switch of NTSC or PAL
<table>
<tr><th>AUTONP</th><th>NTSC/PAL</th></tr>
<tr><td>0</td><td>NTSC</td></tr>
<tr><td>1</td><td>Automatic</td></tr>
</table></td></tr>
</table>

MICROPROCESSOR-CONNECTION DIAGRAM

SUB MICROPROCESSOR



MICROPROCESSOR-TERMINAL DESCRIPTION

PIN NO.	TERMINAL	DESCRIPTION
1-8	NC	
9	VSS	Ground terminal
10-18	NC	
19	FLCS2	Chip select output terminal to connect to the terminal CS for FL tube driver IC.
20	FLSCK	Clock output terminal to connect to the terminal SCK for FL tube driver IC.
21	FLSDATA	Data output terminal to connect to the terminal SDATA for FL tube driver IC.
22	FLCS2	Chip select output terminal to connect to the terminal CS for FL tube driver IC.
23	DOPEN	Detection input terminal for door switch This terminal becomes the high level when the door is opened and FL tube lights on.
24	VSS	Ground terminal
25	DARST	Reset output terminal for D/A converter
26	M3	Output terminal to connect to the terminal M3 for D/A converter MN35502.
27	AC-3LED	AC-3 indicator output terminal
28-30	NC	
31	S1	Output terminal to connect to the terminal S1 for clock generation IC.
32	NC	
33	DPD	Digital power down control output terminal.
34	RFRST	System reset output terminal for AC-3 RF demodulator.
35	RERST	System reset input terminal
36	RFSYNC	Synchronizing detection input terminal for AC-3 RF demodulator
37	ERROR	Input terminal to connect of the terminal ERROR of DIR IC
38	GPI00	Input terminal to connect to the terminal GPI00 of DSP IC
39	LOCK	Input terminal to connect to the terminal LOCK of clock generator IC
40	VDD	Positive power supply terminal
41	X2	Ceramic oscillator connection terminals for main system clock
42	X1	Connect the 10MHz ceramic resonator across the both terminals
43	IC	Internal connection terminal
44	XT2	Ceramic oscillator connection terminals for sub system clock
45	XT1	Not used
46	AVSS	Ground terminal for A/D converter
47	XMODE	Reset output terminal to connect to the terminal XMODE OF DIR IC
48	DIRCE	Chip enable output terminal to connect to the terminal CE of DIR IC
49	HREQ1	Request input terminal to connect to the terminal HREQ of DSP IC
50	SS1	Output terminal to connect to the terminal SS of DSP IC
51	DSPRST1	Reset output terminal to connect to the terminal RESET of DSP IC
52	HREQ2	Request input terminal to connect to the terminal HREQ of DSP IC
53	SS2	Output terminal to connect to the terminal SS of DSP IC
54	DSPRST2	Reset output terminal to connect to the terminal RESET of DSP IC
55	AVDD	Power supply terminal for A/D converter
56	AVREF	Reference voltage input terminal for A/D converter
57	DSPSI	Input terminal to connect to the terminal MISO of DSP IC
58	DSPSO	Output terminal to connect to the terminal MOSI of DSP ICs and DI of DIR IC
59	DSPSCK	Clock output terminal to connect to the terminal SCK of DSP ICs and CL of DIR IC
60	SRDT	Input terminal to connect to the terminal SRDT of DIR IC
61	BUSY	Busy output terminal to connect to the terminal of main microprocessor
62	SI	Data input terminal to connect to the terminal SO of main microprocessor
63	SO	Data output terminal to connect to the terminal SI of main microprocessor
64	SCK	Clock input terminal to connect to the terminal of main microprocessor

fs	M3	XIN clock
32k	H	384fs
44.1k	L	256fs
48k	L	256fs

fs	S1	CKO output
32k	H	384fs
44.1k	L	256fs
48k	L	256fs

PRINTED CIRCUIT BOARD-PARTS LIST

MAIN PC BOARD (NAAR-5829-1A/1B/1C/1D)

CIRCUIT NO.	PART NO.	DESCRIPTION
	ICs	
Q2901	22240798	TC9162AN
Q3501	22240312	NJM4580L-D
Q7001	22241042	MPD780P058GC
Q9301,Q9303	222780055	78M05HF
Q9302	222790055	79M05HF
Q9304~Q9306	222790055	79M05HF
	Transistors	
Q2902~Q2904	2213631 or	RN1241-A or
	2213632	RN1241-B
Q2911	2213284 or	2SC1740S-R or
	2212115	2SC2458-GR
Q7002	221282 or	DTC144ES or
	2213560	RN1204
Q7003	2213510 or	DTA114ES or
	2214350	RN2202
Q9601	2211255	2SC1815-GR
Q9602	2213640 or	DTC123JS or
	2214660	RN1205
	Diodes	
D2911,D2912	223205 or	1SS270A or
D3501,D3502	223163	1SS133
D7001~D7005	223222	WG713A
D2913,D9604	224470623	MTZJ6.2C, Zener
D7006	224470562	MTZJ5.6B, Zener
D7007	223205 or	1SS270A or
D9601~D9603	223163	1SS133
	223222	WG713A
D7008	224470472	MTZJ4.7B, Zener
	Coil	
L7001	233454K220	NCH-1452, 220K, Chock
	Resonator	
X7001	3010242	CST5.00MGW, Ceramic
	Capacitors	
C2911	393341017	100 μ F±5%,16V, Plastic
C3501,C3503	393341007	10 μ F±5%,16V, Plastic
C3504,C3506	393341007	10 μ F±5%,16V, Plastic
C3508	374721034	0.01 μ F±5%,50V, Plastic
C3509,C7007	393341007	10 μ F±5%,16V, Plastic
C7001,C7004	393321017	100 μ F±5%,6.3V, Plastic
C7002	3000076 or	EECS5R5T104 or
	3000078	DX-5R5L104, Super
C7003	375524744	0.47 μ F±5%,50V, Plastic
C7004	393321017	100 μ F±5%,6.3V, Plastic
C7005	393380107	1 μ F±5%,50V, Plastic
C9309,C9310	393341007	10 μ F±5%,16V, Plastic
C9313,C9314	393341007	10 μ F±5%,16V, Plastic
C9317,C9318	393341007	10 μ F±5%,16V, Plastic
C9601	393354717	470 μ F±5%,25V, Plastic
	Resistors	
R2901	49163103406	RM1/10IJ, 10K*6, Array
R2902	49163103406	RM1/10IJ, 10K*6, Array
R2911	443522204	22Ω ±5%, 1/2W, Metal oxide
R9303~R9308	453530104	1Ω ±5%, 1/2W, Metal
R9601	443522204	22Ω ±5%, 1/2W, Metal oxide
R9602	443523314	330Ω ±5%, 1/2W, Metal oxide
R9605	453532294	0.22Ω ±5%, 1/2W, Metal
	Plugs	
P1201a	25055417	NPLG-15P399
P2011a~P2013a	25055412	NPLG-10P394
P2511a,P3011a	25055412	NPLG-10P394
P2512a	25055409	NPLG-7P391
P3012a,P3212a	25055412	NPLG-10P394
P3013a,P3014a	25055409	NPLG-7P391
P3211a,P3213a	25055409	NPLG-7P391
P3214a,P9601a	25055409	NPLG-7P391
P6201a~P6203a	25055412	NPLG-10P394
P7401a	25055412	NPLG-10P394
JL331b	25055630	NPLG-9P592
JL481b,JL701b	25055626	NPLG-5P588
	Sockets	
JL932a	25051094	NSCT-10P881
JL931a	25051096	NSCT-12P883
P7101a	25050965	NSCT-25P752
	Tapping screws	
Q9301b~Q9303b	838430107	3TTB+10S(BC)
	Radiators	
Q9301a~Q9303a	27160209	RAD-67

DISPLAY A PC BOARD (NADIS-5830-1A/1B/1C)

CIRCUIT NO.	PART NO.	DESCRIPTION
	FL tube	
Q7101	212154	30-BT-02G
	ICs	
Q7102,Q7103	22240685R9	M66004FP
	Transistors	
Q7104	2213284 or	2SC1740S-R or
	2212115	2SC2458-GR
Q7131~Q7134	2213354 or	2SA933S-R or
Q7133	2212125	2SA1048-GR
	Diodes	
D7101	224471303	MTZJ13C, Zener
D7102~D7104	223205,	1SS270A,
D7129~D7132	223163 or	1SS133 or
	223222	WG713A
D7111	225142	SEL2913K, LED
D7133~D7144	225259	SEL2910A, LED
D7151~D7163	225137CG	SEL2413E, LED <B>
D7151~D7163	225142	SEL2913K, LED <G>
	Capacitors	
C7101	393381007	10 μ F,50V, Elect.
C7103~C7105	375524744	0.47 μ F±5%,50V, Plastic
C7106,C7111	393321017	100 μ F,6.3V,Elect.
C7107,C7116	375524744	0.47 μ F±5%,50V, Plastic
C7118	374721044	0.1 μ F±5%,50V, Plastic
	Resistors	
R7106	49163103415	RM1/10IJ, 10K*15, Array
R7401	5141002	N16RM20KB25F, Variable
	Switches	
S7103	25065344	NSS-12134, Slide
S7202~S7214	25035652	NPS-111-S604, Push
	Sockets	
P7101	25050931	NSCT-25P718
P7202,P7203	25051554	NSCT-14P1341
P7204,P7205	25051551	NSCT-8P-1338
	Plug	
JL711b	25055632	NPLG-11P594
	Holders	
Q7101a	27190987	FL
D7111a	27190498	LED
D7133a~D7144a	27190988A	LED
D7151a	27190986	SEL

DISPLAY B PC BOARD (NADIS-5831-1A/1B/1C)

CIRCUIT NO.	PART NO.	DESCRIPTION
Q7111	212155	2-ST-67GK, FL tube
Q7111a	27190943	Holder FL
P7201	25051815	NSCT-8P1602, Socket
P7202a,P7203a	25055861	NPLG-14P817, Plug
P7204a,P7205a	25055842	NPLG-8P798, Plug

POWER SWITCH PC BOARD (NASW-5832-1A/1B/1C)

CIRCUIT NO.	PART NO.	DESCRIPTION
	Remote sensor	
U7121	24130011	PIC-12043TE2
	Diodes	
D7112~D7114	225291D	SEL4910D-D, LED
D7115	223205,	1SS270A,
	223163 or	1SS133 or
	223222	WG713A <P>
D7121~D7123	223205,	1SS270A,
	223163 or	1SS133 or
	223222	WG713A
	Capacitor	
C7121	393341007	10μF,16V, Elect.
	Switches	
S7101	25035653	NPS-122-L605, Push <P>
S7201	25035652	NPS-111-S604, Push <D>
	Plug	
P7102	25055225	NPLG-3P209
	Socket	
JL711a	25051095	NSCT-11P882

VIDEO 7 TERMINAL PC BOARD (NAETC-5833-1A/1B/1C)

CIRCUIT NO.	PART NO.	DESCRIPTION
	Capacitors	
C3216,C3316	374721515	150pF±10%,50V, Plastic <D>
C3216,C3316	374724714	470pF±5%,50V, Plastic <P>
	Sockets	
JL331a	25051093	NSCT-9P880
P2505	25051569	NSCT-4P1356
	Terminal	
P3204	25045402	NPJ-3PDBL227

MIC. CIRCUIT PC BOARD (NAETC-5834-1A/1B/1C)

CIRCUIT NO.	PART NO.	DESCRIPTION
Q7151	22240312	NJM4580L-D,IC
C7151	355741009	10μF,16V,Elect. capacitor
C7152	374721024	1000pF±5%,50V, Plastic capacitor
C7153,C7155	355721019	100μF,6.3V,Elect. capacitor
C7154,C7156	374721515	150pF±10%,50V, Plastic capacitor
C7157	355780479	4.7μF,50V,Elect. capacitor
C7158	355744709	47μF,16V,Elect. capacitor
P7151	25045487	LGT1516-0100, Terminal
JL701a	25051089	NSCT-5P876, Socket

VOLUME CONTROL PC BOARD (NAETC-5835-1A/1B/1C)

CIRCUIT NO.	PART NO.	DESCRIPTION
Q7401	22240239	TA7291S,IC
C7401	393321017	100μF,6.3V,Elect. capacitor
P7401	25050678	NSCT-10P482, Socket

HEADPHONE TERMINAL PC BOARD (NAETC-5836-1A/1B/1C)

CIRCUIT NO.	PART NO.	DESCRIPTION
P4801	25045385	YKB26-5153, Hedphone terminal
JL481a	25051089	NSCT-5P876, Socket

AUDIO TERMINAL PC BOARD (NAAF-5837-1A/1B)

CIRCUIT NO.	PART NO.	DESCRIPTION
	ICs	
Q4111	22240312	NJM4580L-D
Q4121,Q4122	22240312	NJM4580L-D
Q4201	22240800	TC9164AN
Q3001~Q3004	22240191	NJM4565D-D
Q3005	22240800	TC9164AN
Q3006	22240798	TC9162AN
Q4001	22240799	TC9163AN
Q4011	22240312	NJM4580L-D
Q4021,Q4022	22240312	NJM4580L-D
Q4023	22240266	TC9213P
Q4024	22240219	LC7522
Q4211,Q4251	22240312	NJM4580L-D
Q4223	22240266	TC9213P
Q4311	22240312	NJM4580L-D
Q4801	22240312	NJM4580L-D
	Transistors	
Q4042	2213631 or	RN1241-A or
Q4052,Q4053	2213632	RN1241-B
Q4071,Q4271	2213510 or	DTA114ES or
	2214350	RN2202
Q4072,Q4272	221282 or	DTC144ES or
	2231560	RN1204
Q4142	2213631 or	RN1241-A or
Q4152,Q4153	2213632	RN1241-B
Q4242,Q4252	2213631 or	RN1241-A or
Q4253	2213632	RN1241-B
Q4341,Q4342	2213631 or	RN1241-A or
Q4352,Q4353	2213632	RN1241-B
Q4811,Q4812	2213631 or	RN1241-A or
Q4911,Q4912	2213632	RN1241-B
	Capacitors	
C3001	374721015	100pF±10%,50V, Plastic <D/T>
C4013,C4029	374721015	100pF±10%,50V, Plastic
C4041,C4113	374721015	100pF±10%,50V, Plastic
C4129,C4141	374721015	100pF±10%,50V, Plastic
C4241,C4341	374721015	100pF±10%,50V, Plastic
C5001,C5101	374721015	100pF±10%,50V, Plastic <D/T>
C5201,C5301	374721015	100pF±10%,50V, Plastic <D/T>
C5401	374721015	100pF±10%,50V, Plastic <D/T>
C4028,C4128	374721034	0.01μF±5%,50V, Plastic
C4026,C4126	374721044	0.1μF±5%,50V, Plastic
C3008,C3011	374721515	150pF±10%,50V, Plastic <D/T>
C3014,C3108	374721515	150pF±10%,50V, Plastic <D/T>
C3111,C3114	374721515	150pF±10%,50V, Plastic <D/T>
C3201	374721515	150pF±10%,50V, Plastic <D/T>
C3003,C3103	374721524	1500pF±5%,50V, Plastic <P/K>
C3006,C3106	374721824	1800pF±5%,50V, Plastic
C3001,C3101	374722215	220pF±10%,50V, Plastic <P/K>
C4025,C4053	374722224	2200pF±5%,50V, Plastic
C4125,C4153	374722224	2200pF±5%,50V, Plastic
C4253,C4353	374722224	2200pF±5%,50V, Plastic
C4353	374722224	2200pF±5%,50V, Plastic
C4027,C4127	374722724	2700pF±5%,50V, Plastic
C3008,C3011	374724714	470pF±5%,50V, Plastic <P/K>
C3014,C3108	374724714	470pF±5%,50V, Plastic <P/K>
C3111,C3114	374724714	470pF±5%,50V, Plastic <P/K>
C3201	374724714	470pF±5%,50V, Plastic <P/K>
C5001,C5101	374724714	470pF±5%,50V, Plastic <P/K>
C5201,C5301	374724714	470pF±5%,50V, Plastic <P/K>
C5301,C5401	374724714	470pF±5%,50V, Plastic <P/K>
C3005,C3105	374726824	6800pF±5%,50V, Plastic
C3004,C3104	393321017	100μF,6.3V,Elect.
C3104	393321017	100μF,6.3V,Elect.
C4803,C4903	393321017	100μF,6.3V,Elect.
C4042,C4142	393324717	470μF,6.3V, Elect.
C4242,C4342	393324717	470μF,6.3V, Elect.
C3002,C3007	393341007	10μF,16V, Elect.
C3009,C3012	393342207	22μF,16V, Elect.
C3015	393342207	22μF,16V, Elect.
C3051,C3052	393341007	10μF,16V, Elect.
C3102,C3107	393341007	10μF,16V, Elect.
C3109,C3112	393342207	22μF,16V, Elect.
C3115	393342207	22μF,16V, Elect.

CIRCUIT NO.	PART NO.	DESCRIPTION
	Capacitors	
C4012,C4020	393341007	10μF,16V, Elect.
C4022~C4024	393341007	10μF,16V, Elect.
C4071	393341007	10μF,16V, Elect.
C4091~C4095	393341007	10μF,16V, Elect.
C4112,C4120	393341007	10μF,16V, Elect.
C4122~C4124	393341007	10μF,16V, Elect.
C4191,C4192	393341007	10μF,16V, Elect.
C4123,C4124	393341007	10μF,16V, Elect.
C4191,C4192	393341007	10μF,16V, Elect.
C4220,C4271	393341007	10μF,16V, Elect.
C4291,C4292	393341007	10μF,16V, Elect.
C4320	393341007	10μF,16V, Elect.
C4391,C4392	393341007	10μF,16V, Elect.
C4801,C4802	393341007	10μF,16V, Elect.
C4811,C4812	393341007	10μF,16V, Elect.
C4901,C4902	393341007	10μF,16V, Elect.
C4043,C4052	393344707	47μF,16V, Elect.
C4143,C4152	393344707	47μF,16V, Elect.
C4243,C4252	393344707	47μF,16V, Elect.
C4343,C4352	393344707	47μF,16V, Elect.
C4011,C4021	393380227	2.2μF,50V, Elect.
C4051,C4111	393380227	2.2μF,50V, Elect.
C4121,C4151	393380227	2.2μF,50V, Elect.
C4221,C4251	393380227	2.2μF,50V, Elect.
C4321,C4351	393380227	2.2μF,50V, Elect.
	Resistors	
R4811,R4822	453530224	2.2Ω ±5%, 1/2W, Metal
	Terminals	
P3001	25045482	NPJ-2PDBL300
P3002~P3004	25045483	NPJ-6PDBL301
	Sockets	
JL541b	25050280	NSCT-3P108
P3011,P3012	25050678	NSCT-10P482
P3013,P3014	25050675	NSCT-7P479
P5001	2009990428	NSAS-18P0572

VIDEO TERMINAL PC BOARD (NAAF-5838-1A/1B)

CIRCUIT NO.	PART NO.	DESCRIPTION
	ICs	
Q3201~Q3207	22240312	NJM4580L-D
Q3208	22240829	TC9274N-008
Q3209	22240799	TC9163AN
Q3401	22240312	NJM4580L-D
Q4421,Q4422	22240312	NJM4580L-D
Q4423	22240266	TC9213P
Q4424	22240219	LC7522
Q4451,Q4521	22240312	NJM4580L-D
Q4621,Q4721	22240312	NJM4580L-D
Q4623	22240266	TC9213P
	Transistors	
Q4452,Q4453	2213631 or	RN1241-A or
Q4541,Q4543	2213632	RN1241-B
Q4471,Q4571	2213510 or	DTA114ES or
Q4671	2214350	RN2202
Q4472,Q4572	221282 or	DTC144ES or
Q4672	2213560	RN1204
Q4552,Q4553	2213631 or	RN1241-A or
Q4652,Q4653	2213632	RN1241-B
Q4752,Q4753	2213631 or	RN1241-A or
	2213632	RN1241-B
	Capacitors	
C3202,C3204	393342207	22μF,16V, Elect.
C3203,C3205	374721515	150pF±10%,50V, Plastic <D/T>
C3203,C3205	374724714	470pF±5%,50V, Plastic <P/K>
C3206,C3209	393342207	22μF,16V, Elect.

CIRCUIT NO.	PART NO.	DESCRIPTION
	Capacitors	
C3208,C3211	374721515	150pF±10%,50V, Plastic <D/T>
C3208,C3211	374724714	470pF±5%,50V, Plastic <P/K>
C3212,C3215	393342207	22μF,16V, Elect.
C3214	374721515	150pF±10%,50V, Plastic <D/T>
C3214	374724714	470pF±5%,50V, Plastic <P/K>
C3217	393342207	22μF,16V, Elect.
C3301,C3303	374721515	150pF±10%,50V, Plastic <D/T>
C3301,C3303	374724714	470pF±5%,50V, Plastic <P/K>
C3302,C3304	393342207	22μF,16V, Elect.
C3305,C3308	374721515	150pF±10%,50V, Plastic <D/T>
C3305,C3308	374724714	470pF±5%,50V, Plastic <P/K>
C3306,C3309	393342207	22μF,16V, Elect.
C3311,C3314	374721515	150pF±10%,50V, Plastic <D/T>
C3311,C3314	374724714	470pF±5%,50V, Plastic <P/K>
C3312,C3315	393342207	22μF,16V, Elect.
C3317	393342207	22μF,16V, Elect.
C3401,C3402	393341007	10μF,16V, Elect.
C3403,C4442	393321017	100μF,6.3V,Elect.
C3404,C3411	393341007	10μF,16V, Elect.
C3412	393341007	10μF,16V, Elect.
C4420	393341007	10μF,16V, Elect.
C4421,C4451	393380227	2.2μF,50V, Elect.
C4422~C4424	393341007	10μF,16V, Elect.
C4425,C4453	374722224	2200pF±5%,50V, Plastic
C4426	374721044	0.1μF±5%,50V, Plastic
C4427	374722724	2700pF±5%,50V, Plastic
C4428	374721034	0.01μF±5%,50V, Plastic
C4429,C4441	374721015	100pF±10%,50V, Plastic
C4443,C4452	393344707	47μF,16V, Elect.
C4461	375524744	0.47μF±5%,50V, Plastic
C4471	393341007	10μF,16V, Elect.
C4491~C4497	393341007	10μF,16V, Elect.
C4520,C4522	393341007	10μF,16V, Elect.
C4521,C4551	393380227	2.2μF,50V, Elect.
C4523,C4571	393341007	10μF,16V, Elect.
C4529	374721024	1000pF±5%,50V, Plastic
C4541,C4641	374721015	100pF±10%,50V, Plastic
C4542	393324717	470μF,6.3V, Elect.
C4543,C4552	393344707	47μF,16V, Elect.
C4553	374722224	2200pF±5%,50V, Plastic
C4554	374721024	1000pF±5%,50V, Plastic
C4591,C4592	393341007	10μF,16V, Elect.
C4620,C4621	393341007	10μF,16V, Elect.
C4643,C4652	393344707	47μF,16V, Elect.
C4651,C4671	393341007	10μF,16V, Elect.
C4691,C4692	393341007	10μF,16V, Elect.
C4720,C4721	393341007	10μF,16V, Elect.
C4741	374721015	100pF±10%,50V, Plastic
C4743,C4752	393344707	47μF,16V, Elect.
C4751	393341007	10μF,16V, Elect.
	Resistors	
R3401,R3402	5210240	N06HR10KBE, Trimming
	Terminals	
P3201~P3203	25045483	NPJ-6PDBL301
P3204	25045490	NPJ-4PDBL307
	Sockets	
JL541a	25051107	NSCT-3P894
JL561a	25051087	NSCT-3P874
P3211	25050675	NSCT-7P479
P3212	25050678	NSCT-10P482
P3213,P3214	25050675	NSCT-7P479

VIDEO CIRCUIT PC BOARD (NAVD-5839-1A/1B/1C/1D)

CIRCUIT NO.	PART NO.	DESCRIPTION
	ICs	
Q2001,Q2002	222840511	4051B
Q2011,Q2111	22240401	MC14577A
Q2151	22240401	MC14577A
Q2201	22241037	LC74761-9189
Q2951,Q2952	22240799	TC9163AN
	Transistors	
Q2012,Q2022	2213284 or	2SC1740S-R or
Q2112,Q2101	2212115	2SC2458-GR
Q2013,Q2023	2213354 or	2SA933S-R or
Q2113	2212125	2SA1048-GR
Q2041~Q2044	2213631 or	RN1241-A or
Q2051~Q2054	2213632	RN1241-B
Q2061~Q2064	2213631 or	RN1241-A or
Q2071~Q2074	2213632	RN1241-B
Q2081~Q2084	2213631 or	RN1241-A or
Q2091,Q2092	2213632	RN1241-B
Q2121,Q2132	2213284 or	2SC1740S-R or
Q2141	2212115	2SC2458-GR
Q2133,Q2153	2213354 or	2SA933S-R or
	2212125	2SA1048-GR
Q2152,Q2181	2213284 or	2SC1740S-R or
Q2191,Q2202	2212115	2SC2458-GR
Q2182,Q2192	221282 or	DTC144ES or
	2213560	RN1204
Q2203,Q2204	2213631 or	RN1241-A or
Q2581,Q2582	2213632	RN1241-B
Q2252,Q2522	2213284 or	2SC1740S-R or
Q2622	2212115	2SC2458-GR
Q2253,Q2523	2213354 or	2SA933S-R or
Q2623	2212125	2SA1048-GR
Q2591,Q2681	2213631 or	RN1241-A or
Q2682,Q2691	2213632	RN1241-B
	Diodes	
D2012,D2013	223205,	1SS270A,
D2022,D2023	223163 or	1SS133 or
D2112,D2113	223222	WG713A
D2132,D2133	223205,	1SS270A,
D2152,D2153	223163 or	1SS133 or
D2181,D2182	223222	WG713A
D2191,D2192	223205,	1SS270A,
D2201,D2252	223163 or	1SS133 or
D2253,D2522	223222	WG713A
D2523,D2622	223205,	1SS270A,
D2623	223163 or	1SS133 or
	223222	WG713A
	Resonator	
X2201	3010167	XTL-14.32M, Crystal
X2202	3010238	XTL-17.73M, Crystal <P/K>
	Coils	
L2201,L2203	233454K220	NCH-1452, 220K, Chock
L2202	233454K056	NCH-1452, 056K, Chock
	Capacitors	
C2003,C2004	354724719	470 μ F,6.3V,Elect.
C2011,C2013	354721019	100 μ F,6.3V,Elect.
C2014,C2021	354721019	100 μ F,6.3V,Elect.
C2023,C2024	354721019	100 μ F,6.3V,Elect.
C2031,C2222	375524744	0.47 μ F±5%,50V, Plastic
C2111,C2113	354721019	100 μ F,6.3V,Elect.
C2114,C2131	354721019	100 μ F,6.3V,Elect.
C2133,C2134	354721019	100 μ F,6.3V,Elect.
C2151,C2153	354721019	100 μ F,6.3V,Elect.
C2154,C2161	354721019	100 μ F,6.3V,Elect.
C2162,C2221	354721019	100 μ F,6.3V,Elect.
C2181,C2191	354780229	2.2 μ F,50V,Elect.

CIRCUIT NO.	PART NO.	DESCRIPTION
	Capacitors	
C2182,C2192	354784799	0.47 μ F,50V,Elect.
C2183,C2193	354741009	10 μ F,16V,Elect.
C2209,C2216	354780109	1 μ F,50V,Elect.
C2211	354741009	10 μ F,16V,Elect.
C2213,C2220	354784799	0.47 μ F,50V,Elect.
C2214	374721224	1200pF±5%,50V, Plastic
C2215	374726824	6800pF±5%,50V, Plastic
C2217	374722234	0.022 μ F±5%,50V, Plastic
C2223,C2226	354721019	100 μ F,6.3V,Elect.
C2251,C2253	354721019	100 μ F,6.3V,Elect.
C2254	354721019	100 μ F,6.3V,Elect.
C2501,C2502	354721019	100 μ F,6.3V,Elect.
C2623,C2624	354721019	100 μ F,6.3V,Elect.
C2951,C2952	354741009	10 μ F,16V,Elect.
	Resistors	
R2019,R2020	453530474	4.7Ω ±5%, 1/2W, Metal
R2029,R2030	453530474	4.7Ω ±5%, 1/2W, Metal
R2119,R2120	453530474	4.7Ω ±5%, 1/2W, Metal
R2139,R2140	453530474	4.7Ω ±5%, 1/2W, Metal
R2159,R2160	453530474	4.7Ω ±5%, 1/2W, Metal
R2259,R2260	453530474	4.7Ω ±5%, 1/2W, Metal
R2529,R2530	453530474	4.7Ω ±5%, 1/2W, Metal
R2629,R2630	453530474	4.7Ω ±5%, 1/2W, Metal
R2951~R2954	49163104408	RM1/10IJ, 100K*8, Array
	Terminals	
P2001,P2002	25045416	NPJ-4PDBL241
P2003	25045484	NPJ-3PDBL302
	Sockets	
P2011~P2013	25050678	NSCT-10P482
P2521	25050678	NSCT-10P482
P2522	25050675	NSCT-7P479

S VIDEO TERMINAL PC BOARD (NAVD-5840-1A/1B/1C/1D)

CIRCUIT NO.	PART NO.	DESCRIPTION
	ICs	
Q2501,Q2502	222840511	4051B
Q2511,Q2521	22240401	MC14577A
Q2601,Q2602	222840511	4051B
	Transistors	
Q2512,Q2522	2213284 or	2SC1740S-R or
Q2612	2212115	2SC2458-GR
Q2513,Q2523	2213354 or	2SA933S-R or
Q2613	2212125	2SA1048-GR
Q2541,Q2542	2213631 or	RN1241-A or
Q2551,Q2552	2213632	RN1241-B
Q2561,Q2562	2213631 or	RN1241-A or
Q2571,Q2572	2213632	RN1241-B
Q2641,Q2642	2213631 or	RN1241-A or
Q2651,Q2652	2213632	RN1241-B
Q2661,Q2662	2213631 or	RN1241-A or
Q2671,Q2672	2213632	RN1241-B
	Diodes	
D2512,D2513	223205,	1SS270A,
D2612,D2613	223163 or	1SS133 or
	223222	WG713A
	Capacitors	
C2511,C2513	354721019	100 μ F,6.3V,Elect.
C2514,C2521	354721019	100 μ F,6.3V,Elect.
C2523,C2524	354721019	100 μ F,6.3V,Elect.
C2613,C2614	354721019	100 μ F,6.3V,Elect.
	Resistors	
R2519,R2520	453530474	4.7Ω ±5%, 1/2W, Metal
R2619,R2620	453530474	4.7Ω ±5%, 1/2W, Metal

CIRCUIT NO.	PART NO.	DESCRIPTION
	Sockets	
P2021,P2511	25050678	NSCT-10P482
P2022,P2512	25050675	NSCT-7P479
P2501	25051748	NSCT-8P1535
P2502~P2504	25051568	NSCT-12P1355

TERMINAL PC BOARD (NAETC-5841-1A/1B/1C/1D)

CIRCUIT NO.	PART NO.	DESCRIPTION
P2021a,P2521a	25055412	NPLG-10P394, Plug
P2022a,P2522a	25055409	NPLG-7P391, Plug

POWER SUPPLY CIRCUIT PC BOARD (NAPS-5843-1A/1B/1D)

CIRCUIT NO.	PART NO.	DESCRIPTION
	Photo couplers	
U6901,U6902	24120034	TORX178
	ICs	
Q9201	222780125NEC	MPC78M12AHF
Q9211	222780565JRC	NJM78M56FA
Q9202	222790125JRC	NJM79M12FA
	Transistors	
Q5001,Q5101	2215427 or	2SC5169-G or
Q5201,Q5301	2215428	2SC5169-H
Q5002,Q5003	2211353 or	2SA949-O or
Q5005,Q5102	2211354	2SA949-Y
Q5004,Q5104	2211633 or	2SC2229-O or
Q5204,Q5304	2211634	2SC2229-Y
Q5006,Q5106	2211732 or	2SC1845-F or
Q5206,Q5306	2211733	2SC1845-E
Q5007,Q5107	2212115 or	2SC2458-GR or
Q5207,Q5307	2213284	2SC1740S-R
Q5103,Q5105	2211353 or	2SA949-O or
Q5202,Q5203	2211354	2SA949-Y
Q5205,Q5302	2211353 or	2SA949-O or
Q5303,Q5305	2211354	2SA949-Y
Q5401	2215427 or	2SC5169-G or
	2215428	2SC5169-H
Q5402,Q5403	2211353 or	2SA949-O or
Q5405	2211354	2SA949-Y
Q5404	2211633 or	2SC2229-O or
	2211634	2SC2229-Y
Q5406	2211732 or	2SC1845-F or
	2211733	2SC1845-E
Q5407,Q9502	2212115 or	2SC2458-GR or
Q9512	2213284	2SC1740S-R
Q6921,Q6922	2212125 or	2SA1048-GR or
	2213354	2SA933S-R
Q9221	2201935 or	2SB1186-E or
	2201936	2SB1186-F
Q9501,Q9511	221282 or	DTC144ES or
	2213560	RN1204
	Diodes	
D5001,D5101	223205,	1SS270A,
D5201,D5301	223163 or	1SS133 or
D5401,D6911	223222	WG713A
D6912,D6902	223205,	1SS270A,
D9501,D9511	223163 or	1SS133 or
	223222	WG713A
D9201~D9206	22380260,	RL1N4003,
D9211,D9212	22380035 or	GP104003E or
D9221,D9222	22380046	AM01Z
D9223	224473304	MTZJ33D, Zener
D9301	22380048	RBA402
D9401~D9405	22380260,	RL1N4003,
	22380035 or	GP104003E or
	22380046	AM01Z

CIRCUIT NO.	PART NO.	DESCRIPTION
	Capacitors	
C5002,C5102	393381007	10 μ F,50V, Elect.
C5003,C5103	372124705	47pF ± 10%,50V, Styrene
C5005,C5105	374723315	330pF ± 10%,50V, Plastic
C5008,C5108	363150502	5pF, 500V, Mica
C5010,C5011	374721015	100pF ± 10%,50V, Plastic
C5012,C5112	393342217	220 μ F,16V, Elect.
C5013,C5113	393341007	10 μ F,16V, Elect.
C5014,C5015	354700109	1 μ F,160V,Elect.
C5110,C5111	374721015	100pF ± 10%,50V, Plastic
C5016,C5116	393344717	470 μ F,16V, Elect.
C5114,C5115	354700109	1 μ F,160V,Elect.
C5202,C5302	393381007	10 μ F,50V, Elect.
C5203,C5303	372124705	47pF ± 10%,50V, Styrene
C5205,C5305	374723315	330pF ± 10%,50V, Plastic
C5208,C5308	363150502	5pF, 500V, Mica
C5210,C5211	374721015	100pF ± 10%,50V, Plastic
C5212,C5312	393342217	220 μ F,16V, Elect.
C5213,C5313	393341007	10 μ F,16V, Elect.
C5214,C5215	354700109	1 μ F,160V,Elect.
C5310,C5311	374721015	100pF ± 10%,50V, Plastic
C5216,C5316	393344717	470 μ F,16V, Elect.
C5314,C5315	354700109	1 μ F,160V,Elect.
C5402	393381007	10 μ F,50V, Elect.
C5403	372124705	47pF ± 10%,50V, Styrene
C5405	374723315	330pF ± 10%,50V, Plastic
C5408	363150502	5pF, 500V, Mica
C5410,C5411	374721015	100pF ± 10%,50V, Plastic
C5412	393342217	220 μ F,16V, Elect.
C5413	393341007	10 μ F,16V, Elect.
C5414,C5415	354700109	1 μ F,160V,Elect.
C5416	393344717	470 μ F,16V, Elect.
C6901,C6903	375524744	0.47 μ F ± 5%,50V, Plastic
C6902,C6904	393321017	100 μ F,6.3V,Elect.
C9001,C9002	3500191	DE7150F103M, IS C
C9205	354754729	4700 μ F,25V,Elect.
C9206	354761029	1000 μ F,35V,Elect.
C9209,C9210	393341007	10 μ F,16V, Elect.
C9211	354751029	1000 μ F,25V,Elect.
C9213,C9511	393341007	10 μ F,16V, Elect.
C9221,C9222	354781019	100 μ F,50V,Elect.
C9223,C9224	354780229	2.2 μ F,50V,Elect.
C9301,C9302	374721044	0.1 μ F ± 5%,50V, Plastic
C9305,C9306	354744729	4700 μ F,16V,Elect.
C9404	393342217	220 μ F,16V, Elect.
	Resistors	
R5008,R5009	443521024	1k Ω ± 5%, 1/2W, Metal oxide
R5010~R5014	443521014	100 Ω ± 5%, 1/2W, Metal oxide
R5022,R5122	5210257	N06HR500BC, Trimming
R5026,R5027	453530224	2.2 Ω ± 5%, 1/2W, Metal
R5108,R5109	443521024	1k Ω ± 5%, 1/2W, Metal oxide
R5110~R5114	443521014	100 Ω ± 5%, 1/2W, Metal oxide
R5126,R5127	453530224	2.2 Ω ± 5%, 1/2W, Metal
R5208,R5209	443521024	1k Ω ± 5%, 1/2W, Metal oxide
R5210~R5214	443521014	100 Ω ± 5%, 1/2W, Metal oxide
R5222,R5322	5210257	N06HR500BC, Trimming
R5226,R5227	453530224	2.2 Ω ± 5%, 1/2W, Metal
R5308,R5309	443521024	1k Ω ± 5%, 1/2W, Metal oxide
R5310~R5314	443521014	100 Ω ± 5%, 1/2W, Metal oxide
R5326,R5327	453530224	2.2 Ω ± 5%, 1/2W, Metal
R5408,R5409	443521024	1k Ω ± 5%, 1/2W, Metal oxide
R5410~R5414	443521014	100 Ω ± 5%, 1/2W, Metal oxide
R5422	5210257	N06HR500BC, Trimming
R5426,R5427	453530224	2.2 Ω ± 5%, 1/2W, Metal
R9001	431533355	⚠ RC1/2GFK, 3.3M, Solid <D>
R9002~R9004	4000148	⚠ M3R014C, Themistor <D>

CIRCUIT NO.	PART NO.		DESCRIPTION
	Resistors		
R9002~R9005	4000147	⚠	S5R114, Themistor <P/K>
R9201,R9202	453532294		0.22Ω ±5%, 1/2W, Metal
R9203~R9206	453530104		1Ω ±5%, 1/2W, Metal
R9207,R9209	453630224		2.2Ω ±5%, 1W, Metal
R9208	453630824		8.2Ω ±5%, 1W, Metal
R9211	443621504		15Ω ±5%, 1W, Metal oxide
R9221,R9222	453530824		8.2Ω ±5%, 1/2W, Metal
R9231	453530224		2.2Ω ±5%, 1/2W, Metal
R9241	453532294		0.22Ω ±5%, 1/2W, Metal
R9301,R9302	453532294		0.22Ω ±5%, 1/2W, Metal
R9401	453530824		8.2Ω ±5%, 1/2W, Metal
	Power transformers		
T902	2300670	⚠	NPT-1111D <D>
T902	2300671	⚠	NPT-1111P <P>
T902	2300672	⚠	NPT-1111DG <K>
	Fuses		
F9001	252196	⚠	12A-UL/T-237 <D/T>
F9002	252079	⚠	6.3A-SE-EAK <P/A/K>
F9003	252075	⚠	2.5A-SE-EAK <P/A>
	Fuseholders		
F9001a	250113	⚠	S-N5051 <D>
F9002a	25050065	⚠	YSH403T <P/K>
F9003a	25050065	⚠	YSH403T <P>
	Terminal		
P6901	25045486		NPJ-2PDBL304
	Plugs		
JL501b	25055628		NPLG-7P590
JL502b,JL503b	25055630		NPLG-9P592
JL504b,JL691b	25055628		NPLG-7P590
JL931b	25055633		NPLG-12P595
JL932b	25055631		NPLG-10P593
P5001a	25055139		NPLG-9P123
P9011a,P9311a	25055167		NPLG-4P151G
P9211a	25055168		NPLG-5P152
	Relays		
RL9001,RL9002	25065516 or	⚠	NRL-1P10A-DC12-097 or
RL9003	25065248	⚠	NRL-1P15A-DC12-29 <D>
RL9001,RL9002	25065515 or	⚠	NRL-1P5A-DC12-096 or
RL9003	25065508	⚠	NRL-1P10A-DC12-093 <P/K>
	Radiators		
Q9201a,Q9202a	27160209		RAD-67

AC OUTLET PC BOARD (NAETC-5844-1/5845-1)

CIRCUIT NO.	PART NO.		DESCRIPTION
P9002	25051220	⚠	NSCT-6P1010, AC outlet <D>
P9003	25051125	⚠	NSCT-4P912, AC outlet <P>

POWER AMPLIFIER PC BOARD (NAAF-5847-1A/1B)

CIRCUIT NO.	PART NO.	DESCRIPTION
	Transistors	
Q5051,Q5151	2212864	2SC3419-Y
Q5052,Q5053	2212654	2SC3421-Y
Q5054,Q5154	2212644	2SA1358-Y
Q5055,Q5155	2203000	2SA1930
Q5056,Q5156	2203010	2SC5171
Q5057,Q5157	2203094,	2SA1216-Y,
Q5257,Q5357	2203095 or	2SA1216-G or
Q5457	2203096	2SA1216-P
Q5058,Q5158	2203104,	2SC2922-Y,
Q5258,Q5358	2203105 or	2SC2922-G or
Q5458	2203106	2SC2922-P
Q5059,Q5159	2214975 or	2SA1123-S or
Q5259,Q5359	2214974	2SA1123-R
Q5060,Q5160	2211732 or	2SC1845-F or
Q5260,Q5360	2211733	2SC1845-E
Q5152,Q5153	2212654	2SC3421-Y
Q5251,Q5351	2212864	2SC3419-Y
Q5252,Q5253	2212654	2SC3421-Y
Q5254,Q5354	2212644	2SA1358-Y
Q5255,Q5355	2203000	2SA1930
Q5256,Q5356	2203010	2SC5171
Q5352,Q5353	2212654	2SC3421-Y
Q5451	2212864	2SC3419-Y
Q5452,Q5453	2212654	2SC3421-Y
Q5454	2212644	2SA1358-Y
Q5455	2203000	2SA1930
Q5456	2203010	2SC5171
Q5459	2214975 or	2SA1123-S or
	2214974	2SA1123-R
Q5460	2211732 or	2SC1845-F or
	2211733	2SC1845-E
Q5601	2212445	2SK365-GR
Q5602,Q5603	2213284 or	2SC1740S-R or
	2212115	2SC2458-GR
Q5604,Q5605	221282 or	DTC144ES or
Q5631,Q5641	2213560	RN1204
Q5606	2202115 or	2SD2061-E or
	2202116	2SD2061-F
Q5607	2213284 or	2SC1740S-R or
Q5621,Q5622	2212115	2SC2458-GR
Q5632,Q5642	2213284 or	2SC1740S-R or
	2212115	2SC2458-GR
	Diodes	
D5051,D5151	223205,	1SS270A,
D5251,D5351	223163 or	1SS133 or
D5451,D5621	223222	WG713A
D5601~D5607	223205,	1SS270A,
D5631~D5633	223163 or	1SS133 or
D5641~D5643	223222	WG713A
D5608	224471303	MTZJ13C, Zener
D9101	22380044	RBV-1506
D5609,D5610	22380260,	RL1N4003,
	22380035 or	GP104003E or
	22380046	AM01Z
D9103,D9104	223208F	#1 6A2
	Cores	
L5051,L5052	5597-45502	
L5151,L5152	5597-45502	
L5251,L5252	5597-45502	
L5351,L5352	5597-45502	
L5451,L5452	5597-45502	
	capacitors	
C5051	374721024	1000pF±5%,50V, Plastic
C5052	393364707	47μF,35V, Elect.
C5053,C5054	393381007	10μF,50V, Elect.
C5057,C5058	374731044	0.1μF±5%,100V, Plastic
C5059,C5060	374721024	1000pF±5%,50V, Plastic <P/K>
C5151	374721024	1000pF±5%,50V, Plastic
C5152,C5252	393364707	47μF,35V, Elect.
C5153,C5154	393381007	10μF,50V, Elect.
C5157,C5158	374731044	0.1μF±5%,100V, Plastic
C5159,C5160	374721024	1000pF±5%,50V, Plastic <P/B/K/PT>
C5251	374721024	1000pF±5%,50V, Plastic <D>
C5253,C5254	393381007	10μF,50V, Elect. <D>
C5257,C5258	374731044	0.1μF±5%,100V, Plastic
C5259,C5260	374721024	1000pF±5%,50V, Plastic <P/B/K/PT>
C5351	374721024	1000pF±5%,50V, Plastic
C5352,C5452	393364707	47μF,35V, Elect.
C5353,C5354	393381007	10μF,50V, Elect.

CIRCUIT NO.	PART NO.	DESCRIPTION
	Capacitors	
C5357,C5358	374731044	0.1 μ F±5%,100V, Plastic
C5359,C5360	374721024	1000pF±5%,50V, Plastic <P/B/K/PT>
C5451	374721024	1000pF±5%,50V, Plastic
C5453,C5454	393381007	10 μ F,50V, Elect.
C5457,C5458	374731044	0.1 μ F±5%,100V, Plastic
C5459,C5460	374721024	1000pF±5%,50V, Plastic
C5601~C5604	393361017	100 μ F,35V, Elect.
C5621	393322217	220 μ F,6.3V, Elect.
C9104~C9106	374731044	0.1 μ F±5%,100V, Plastic
C9111,C9112	3504293	2200 μ F,80V, Elect.
	Resistors	
R5055,R5056	453532294	0.22Ω ±5%, 1/2W, Metal
R5059,R5060	443523904	39Ω ±5%, 1/2W, Metal oxide
R5061,R5062	443521814	180Ω ±5%, 1/2W, Metal oxide
R5063,R5064	453530224	2.2Ω ±5%, 1/2W, Metal
R5065,R5066	443523304	33Ω ±5%, 1/2W, Metal oxide
R5066	443523304	33Ω ±5%, 1/2W, Metal oxide
R5071	4000145	0.1ohm,2W, Metal plate
R5072	4000145	0.1ohm,2W, Metal plate
R5075,R5175	453630334	3.3Ω ±5%, 1W, Metal
R5076,R5176	453630824	8.2Ω ±5%, 1W, Metal
R5155,R5156	453532294	0.22Ω ±5%, 1/2W, Metal
R5159,R5160	443523904	39Ω ±5%, 1/2W, Metal oxide
R5161,R5162	443521814	180Ω ±5%, 1/2W, Metal oxide
R5163,R5164	453530224	2.2Ω ±5%, 1/2W, Metal
R5165,R5166	443523304	33Ω ±5%, 1/2W, Metal oxide
R5171	4000145	0.1ohm,2W, Metal plate
R5172	4000145	0.1ohm,2W, Metal plate
R5255,R5256	453532294	0.22Ω ±5%, 1/2W, Metal
R5259,R5260	443523904	39Ω ±5%, 1/2W, Metal oxide
R5261,R5262	443521814	180Ω ±5%, 1/2W, Metal oxide
R5263,R5264	453530224	2.2Ω ±5%, 1/2W, Metal
R5265,R5266	443523304	33Ω ±5%, 1/2W, Metal oxide
R5271	4000145	0.1ohm,2W, Metal plate
R5272	4000145	0.1ohm,2W, Metal plate
R5275,R5375	453630334	3.3Ω ±5%, 1W, Metal
R5276,R5376	453630824	8.2Ω ±5%, 1W, Metal
R5355,R5356	453532294	0.22Ω ±5%, 1/2W, Metal
R5359,R5360	443523904	39Ω ±5%, 1/2W, Metal oxide
R5361,R5362	443521814	180Ω ±5%, 1/2W, Metal oxide
R5363,R5364	453530224	2.2Ω ±5%, 1/2W, Metal
R5365,R5366	443523304	33Ω ±5%, 1/2W, Metal oxide
R5371,R5372	4000145	0.1ohm,2W, Metal plate
R5455,R5456	453532294	0.22Ω ±5%, 1/2W, Metal
R5459,R5460	443523904	39Ω ±5%, 1/2W, Metal oxide
R5461,R5462	443521814	180Ω ±5%, 1/2W, Metal oxide
R5463,R5464	453530224	2.2Ω ±5%, 1/2W, Metal
R5465,R5466	443523304	33Ω ±5%, 1/2W, Metal oxide
R5471,R5472	4000145	0.1ohm,2W, Metal plate
R5475	453630334	3.3Ω ±5%, 1W, Metal
R5476	453630824	8.2Ω ±5%, 1W, Metal
R5608	4000153	PTH9M04BF, 222TS2F333, Themistor
R5615	4000150	PTH9M04BC, 222TS2F333, Themistor
R5616	443621004	10Ω ±5%, 1W, Metal oxide
R9111,R9112	453530104	1Ω ±5%, 1/2W, Metal
	Relays	
RL5631~RL5633	25065510 or	NRL-2P5A-DC24-095 or
RL5641~RL5643	25065517	NRL-2P5A-DC24-098
	Terminals	
P5251	25060125	NTM-8PDMN058
P5451	25060147	NTM-4PDMN075
	Sockets	
JL501a,JL504a	25051091	NSCT-7P878
JL502a,JL503a	25051093	NSCT-9P880

CIRCUIT NO.	PART NO.	DESCRIPTION
	Plugs	
P5061a	25055678	NPLG-8P634, P PLUG
P5091a,P5091a	25055038	NPLG-2P29, P PLUG
P5291a,P5391a	25055038	NPLG-2P29, P PLUG
P5491a	25055038	NPLG-2P29, P PLUG
P5601a,P5602a	25055099	NPLG-2P83, P PLUG
P9112a	25055678	NPLG-8P634, P PLUG

SECONDARY CIRCUIT PC BOARD (NAETC-5848-1A/1B)

CIRCUIT NO.	PART NO.	DESCRIPTION
P9111a	25055166	NPLG-3P150, P PLUG
P9112	25051127	NSCT-8P914, SOCKET

TERMINAL PC BOARD (NAETC-5849-1A/1B)

CIRCUIT NO.	PART NO.	DESCRIPTION
P5061	25051127	NSCT-8P914, SOCKET

FRONT SPEAKER PC BOARD (NAETC-5850-1A/1B)

CIRCUIT NO.	PART NO.	DESCRIPTION
P5051	25060125	NTM-8PDMN058, TRM
P5051	25060125	NTM-8PDMN058, TRM

DSP CIRCUIT PC BOARD (NADG-5851-1)

CIRCUIT NO.	PART NO.	DESCRIPTION
	ICs	
Q6001,Q6002	22240581R1	NJM4565M
Q6131	22241039R2	AK5390
Q6202	22240976R1	MC14577A
Q6205	22240977R2	NJM360M
Q6206,Q6406	222740046R1TO	TC74HCU04AF
Q6207,Q6209	22240581R1	NJM4565M
Q6210	22240973R3	PD4606A
Q6211,Q6212	222400985R3 or	TC55257CFL-85 or
	222401036R9	M5M5256CFP-70
Q6301	22240915R3	LC8904Q
Q6401	22240972R3	DSP56009FJ80
Q6402	22240940R3 or	XC56004FJ66 or
	22240867	LC32464P-80
Q6405	22240928R2	TC9246F
Q7501	22241043R3	MPD78P018FGC, (TX939)
Q8001,Q8201	22241038R2	MN35502
Q8002,Q8003	22240581R1	NJM4565M
Q8102,Q8103	22240581R1	NJM4565M
Q8202,Q8203	22240581R1	NJM4565M
Q8302,Q8303	22240581R1	NJM4565M
Q8401	22241038R2	MN35502
Q8402,Q8403	22240581R1	NJM4565M
Q8502~Q8504	22240581R1	NJM4565M
	Transistors	
Q6201,Q6203	2213143R2	2SC2712-O
Q6204,Q6208	2214373R2	2SA1162-O
	Diodes	
D6201,D6401	223236R2	KV1851-TL
D6001~D6004	223234R2	1SS352
D6101~D6104	223234R2	1SS352
	Coils	
L6131~L6133	231237K470R2	NCH-1479, Choke
L6201	231253K680	NCH-1500, 680K, Choke
L6202~L6205	231237K470R2	NCH-1479, Choke
L6302,L6303	230921R2	BLM-21B222ST, Choke
L6301	231237K470R2	NCH-1479, Choke
L6304~L6306	230921R2	BLM-21B222ST, Choke
L6401,L6402	231237K470R2	NCH-1479, Choke
L6403	231237M022R2	NCH-1471, 022M, Choke
L6404	231237K470R2	NCH-1479, Choke
L6451	233500	NVO-4068, Oscillator

CIRCUIT NO.	PART NO.	DESCRIPTION
	Coils	
L6452	230921R2	BLM-21B222ST, Choke
L6453,L6454	231237K470R2	NCH-1479, Choke
L7501	231237K470R2	NCH-1479, Choke
L8001,L8002	231237K470R2	NCH-1479, Choke
	Oscillators	
X6201	3010263	SBP-4930
X6202	3010266	XTL-18.432M, Crystal
X6301	3010266	XTL-18.432M, Crystal
X6203	3010276 or	XTL-46.08M or
	3010267	XTL-46.08M, Crystal
X7501	3010273R2	CSTCS10.0MT, Ceramic
	Capacitors	
C6133	356741009R2	10 μ F,16V, Chip elect.
C6136,C6137	356724709R2	47 μ F,6.3V, Chip elect.
C6139,C6141	356724709R2	47 μ F,6.3V, Chip elect.
C6207	356744709R2	47 μ F,16V, Chip elect.
C6208,C6223	356724709R2	47 μ F,6.3V, Chip elect.
C6216	356721019R2	100 μ F,16V, Chip elect.
C6224,C6230	356724709R2	47 μ F,6.3V, Chip elect.
C6303,C6309	356724709R2	47 μ F,6.3V, Chip elect.
C6403,C6413	374724734	0.047 μ F±5%,50V, Plastic
C6406,C6416	356724709R2	47 μ F,6.3V, Chip elect.
C6410	393324714	47 μ F,6.3V, Elect.
C6422,C6425	356724709R2	47 μ F,6.3V, Chip elect.
C6451,C6458	356724709R2	47 μ F,6.3V, Chip elect.
C6459	356784799R2	0.47 μ F,50V, Chip elect.
C7503	356724709R2	47 μ F,6.3V, Chip elect.
C7504,C7507	356721009R2	10 μ F,16V, Chip elect.
C7508,C7510	356721009R2	10 μ F,16V, Chip elect.
C8015,C8115	374722234	0.022 μ F±5%,50V, Plastic
C8215,C8315	374722234	0.022 μ F±5%,50V, Plastic
C8415	374722234	0.022 μ F±5%,50V, Plastic
C8521,C8528	356741009R2	10 μ F,16V, Chip elect.
C8522~C8527	374724734	0.047 μ F±5%,50V, Plastic
C8601,C8602	356724709R2	47 μ F,6.3V, Chip elect.
C8611,C8612	356724709R2	47 μ F,6.3V, Chip elect.
C8621,C8622	356724709R2	47 μ F,6.3V, Chip elect.
C8633,C8634	356724709R2	47 μ F,6.3V, Chip elect.
C8635~C8638	356724709R2	47 μ F,6.3V, Chip elect.
	Sockets	
P6203~P6205	25050678	NSCT-10P482
JL691a	25051091	NSCT-7P878

OPERATION SWITCH PC BOARD (NASW-5852-1)

CIRCUIT NO.	PART NO.	DESCRIPTION
S7215~S7253	25035652	NPS-111-S604, Push switches
P7102	2000875	NSAS-6P831, Socket

DOOR SWITCH PC BOARD (NASW-5853-1)

CIRCUIT NO.	PART NO.	DESCRIPTION
P7201a	25050914	NSCT-8P701, Socket
S7102	25065322	NMS-1214, Push switch

SUB PC BOARD (NAETC-6086-1) #2

CIRCUIT NO.	PART NO.	DESCRIPTION
Q6923	2211723	2SC1923-O, Transistor
C6921	374721044	0.1 μ F±5%,50V, Plastic capacitor
C6923	353721019	100 μ F,6.3V,Elect. capacitor

NOTE:
#1 D9103 and D9104 are abolished to improve the sound quality from March.
#2 The parts on the pc board NAETC-6086 are attached on NAPS-5843 from April.

NOTE: THE COMPONENTS IDENTIFIDE BY MARK ⚠ ARE CRITICAL FOR RISK OF FIRE AND ELECTRIC SHOCK. REPLACE ONLY WITH PART NUMBER SPECIFIDE.

NOTE:
<D>: 120V model
<P>: 230V model
<A>: Asian model
<T>: Taiwanese model
<K>: Korean model
<U>: U.K model
<B>: Black model
<G>: Golden model

ADJUSTMENT PRPCEDURES

Preparation

1. Input

FM momo: 1kHz, 75kHz devi., 60dB/μV
FM stereo: 1kHz, L+R 67.5kHz devi., 60dB/μV
Pilot signal 19kHz 7.5kHz devi.
AM: 400Hz, 30% mod.

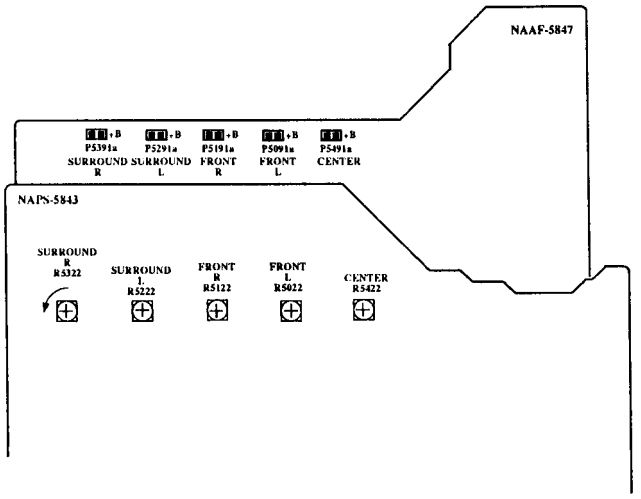
2. Outputs

Connect the non-inductive type resistor of 8 ohms to the all speaker terminals unless otherwise noted.

IDLING CURRENT ADJUSTMENT

When raplaced the power amplifier transistors, you should proceed to adjust the idling current adjustment.
Turn the trimming resistors R5022, R5122, R5222, R5322 and R5422 counter-clockwise to set to the minimum position.
Connect DC voltmeter to the test terminals P5091a, P5191a, P5291a, P5391a, P5491a and P5591a.
Turn POWER switch "ON". Adjust the above trimmer resistors so that the reading of voltemter becomes 2.0±0.3mV.
After adjustment, attach the top cover.
After aprrox. 5 minutes, adjust the above trimmers so that reading of voltmeter becomes 7.5±0.5mV.
Turn POWER switch "OFF".

NOTE: The Idling current adjustment should be proceed at cool conditions.



MICROPHONE LEVEL

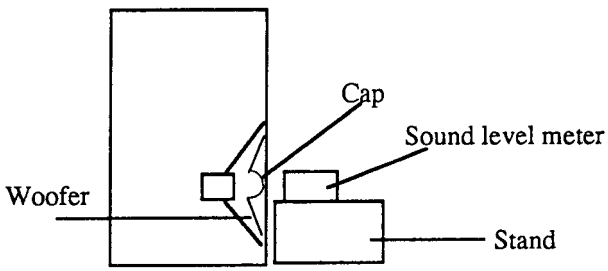
When the analyzer microphone is replaced, you should adjust the sensitivity and frequency correction of microphone.

Preparation

Cassette deck, Amplifier, Speaker system, Sound level meter (Part No. 0J11)
Monitor TV
You are necessary to adjust at the place which the sound level is less than 55dB.

Adjustment

1. Connect the cassette deck to the PREOUT L on the rear panel of unit.
2. Insert the blank tape in the cassette holder.
3. Press TEST button on the remote controller.
4. Record 1 kHz pink noise on the tape.
5. Connect the cassette deck to the PREOUT of SUBWOOFER on the rear panel of unit.
6. Press the ENTER button on the remote controller to display the Menu screen. Press the PARAMETER buttons to select the Bass Peak Level.(Refer to the page 33 on the instruction manual.) Press PARAMETER button ▶ to play the test signal
7. Record 40 Hz pink noise on the tape.
8. Connect the cassette deck and speaker system to the terminal on amplifier.
9. Set the sound level meter to the approx. 1m position from speaker system. When speaker system is small, set the sound level meter to the near of cap of woofer as shown below.



10. Play 1 kHz pink noise.
11. Turn VOLUME on the amplifier so that the indication of meter becomes 75dB.
12. Press CD and SPEAKER A buttons at the same time to set to the TEST mode.
13. Press VIDEO-4 button.
14. Turn VOLUME on the amplifier so that the indication of meter becomes 75dB.
15. Insert the microphone to the terminal ANALYZER on the unit and put the microphone to the same position.
16. Adjust Trimming resistor R3401 so that the indication of FL tube becomes 0dB.
17. Play 40 Hz pink noise.
18. Turn VOLUME on the amplifier so that the indiation of meter becomes 75dB.
19. Press MULTI SOURCE button.
20. Adjust Trimming resistor R3402 so that the indication of FL tube becomes 0dB.

FM ADJUSTMENT

Item	Step	Connection of instrument	FM SG output	Stereo modulator output	Tuning frequency	Output indicator	Adjustment point	Adjust for	Remarks
FM IF/RF	1	Fig.1	99.0MHz 1kHz 75kHz devi. 65dBf(60dB)	——	99.0MHz	DC voltmeter	L1101	0±20mV	FM MUTE/MODE switch:ON/AUTO Repeat the steps 1 and 3 until no further adjustment is necessary.
	2					AC voltmeter	IFT on the front end	Maximum	
	3					Distortion analyzer	L1102	Minimum	
VCO		Fig.2	99.0MHz 1kHz 75kHz devi. 65dBf(60dB)	——	99.0MHz	Frequency counter	R1161	19kHz± 10Hz	FM MUTE/MODE switch:ON/STEREO
Stereo Distortion		Fig.3	99.0MHz Ext. mod.65dBf(60dB)	Channel L or R 1kHz	99.0MHz	Distortion analyzer	IFT on the front end	Minimum	Don't tum more than ±180°
Stereo Separation	1	Fig.3	99.0MHz Ext. mod. 65dBf(60dB)	Channel L 1kHz	99.0MHz	Channel R AC voltmeter	R1162	Minimum	Maximum and same separation
	2			Channel R 1kHz		Channel L AC voltmeter		Minimum	
Muting Level		Fig.3	99.0MHz 19.2dBf(14dB)	——	99.0MHz	Oscilloscope	R1101	TUNED indicator lights on	
RDS		Fig.4	98.0MHz Ext. mod.60dB	RDS data or 57kHz 3% devi.	98.0MHz	Oscilloscope	R1304	Maximum	

AM ADJUSTMENT

120V model

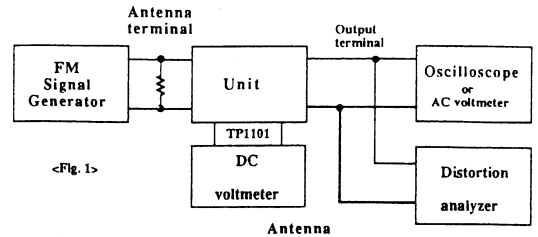
Step	AM SG output	Tuning Frequency	Output Indicator	Adjustment point	Adjust for
1		530kHz	Digital DC voltmeter	OSC coil on RF block L1111	1.3±0.2V
2	600kHz 400Hz 30% mod. 60dB/m	600kHz	AC voltmeter	RF coil on RF block L1111	Maximum
3	990kHz 400Hz 30% mod. 60dB/m	990kHz	AC voltmeter	L1112	Maximum

Reference Specification
FM tuned voltage:87.50MHz~108.00MHz
More than 1.2V~Less than 10V
AM tuned voltage:530kHz~1710kHz
1.3±0.2~Less than 9.0V

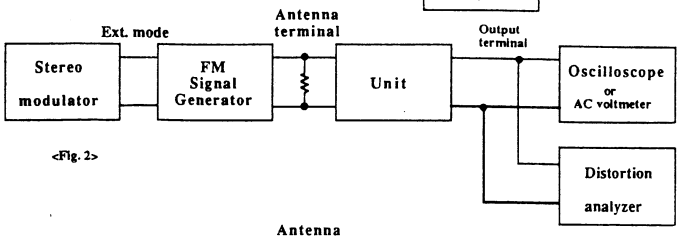
230V and Wolrdwide models

Step	AM SG output	Tuning Frequency	Output Indicator	Adjustment point	Adjust for
1		522kHz or 531kHz	Digital DC voltmeter	OSC coil on RF block L1111	1.3±0.2V
2	603kHz 400Hz 30% mod. 60dB/m	603kHz	AC voltmeter	RF coil on RF block L1111	Maximum
3	999kHz 400Hz 30% mod. 60dB/m	999kHz	AC voltmeter	L1112	Maximum

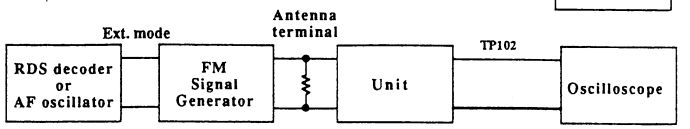
Reference Specification
FM tuned voltage:87.50MHz~108.00MHz
More than 1.2V~Less than 10V
AM tuned voltage:522kHz~1611kHz
1.3±0.2~Less than 9.0V
(230V model)
AM tuned voltage:531kHz~1602kHz
1.3±0.2~Less than 9.0V
(Worldwide model)



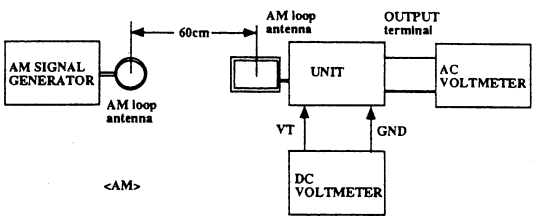
<Fig. 1>



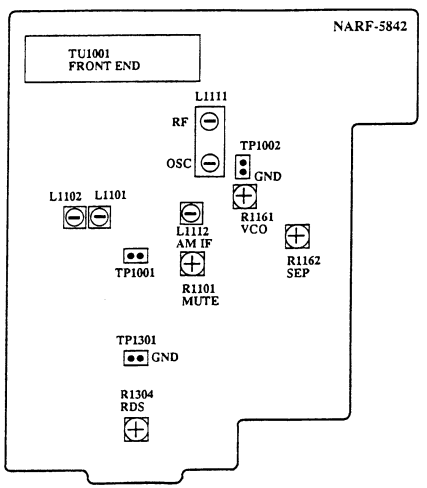
<Fig. 2>



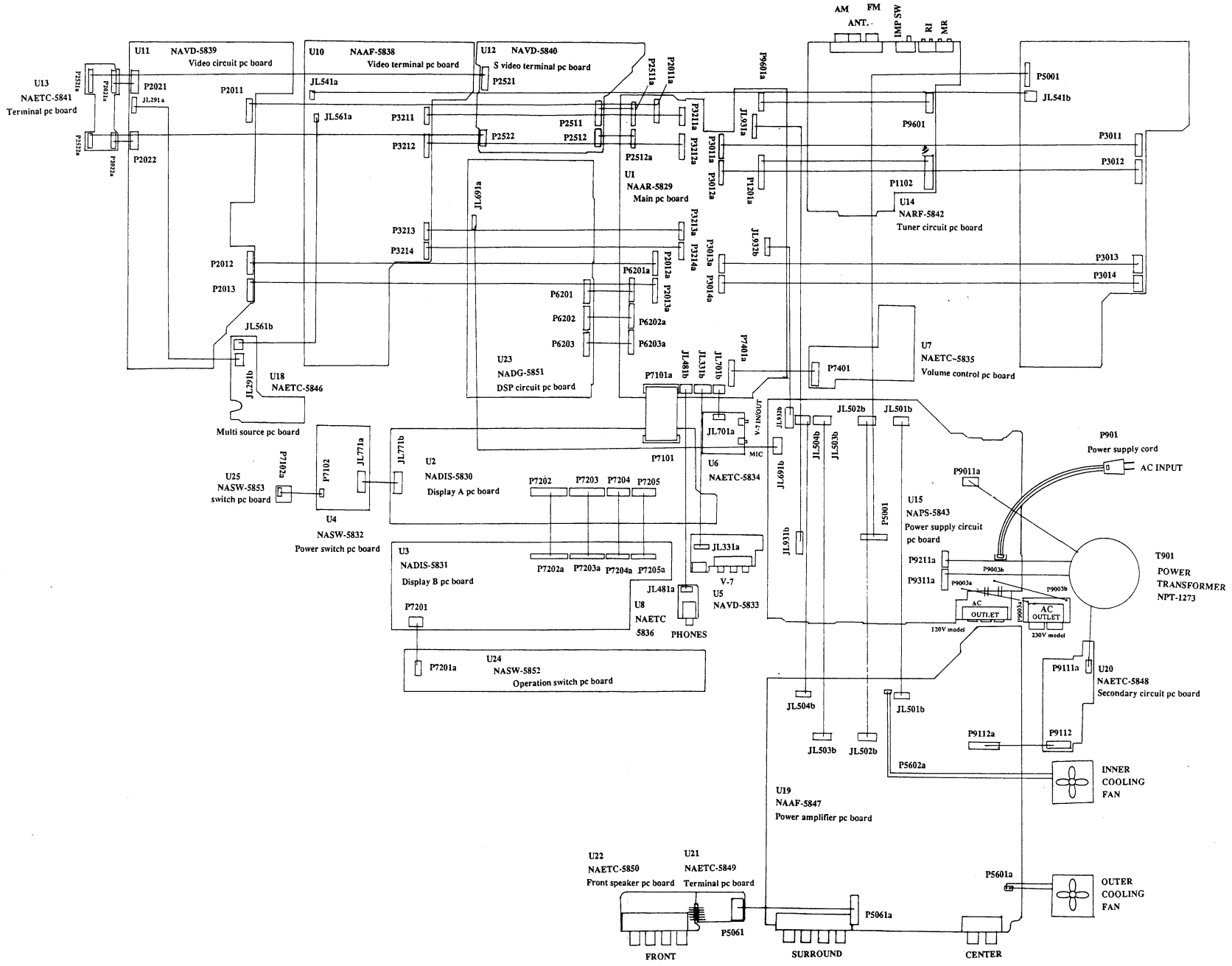
<Fig. 3>



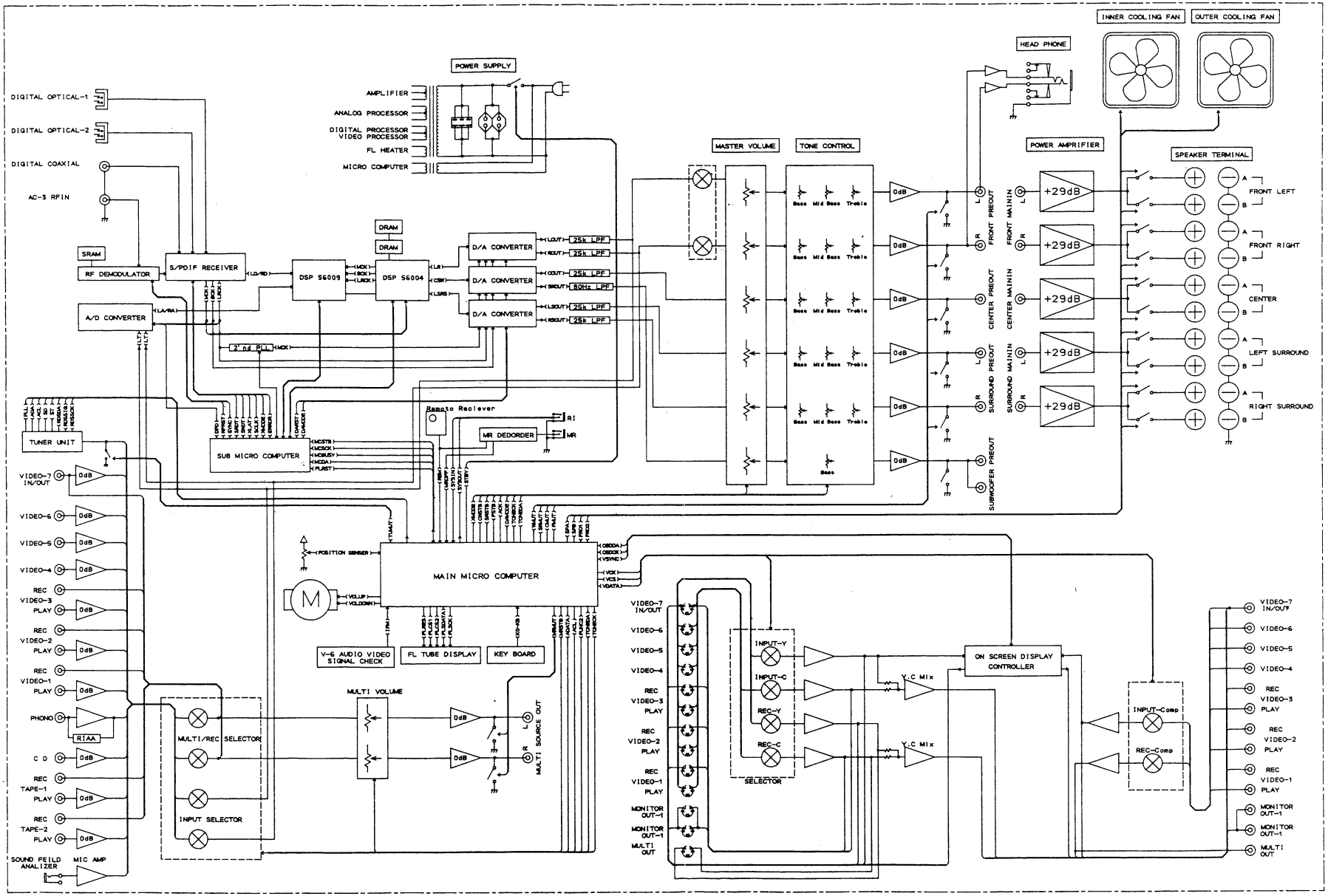
<AM>



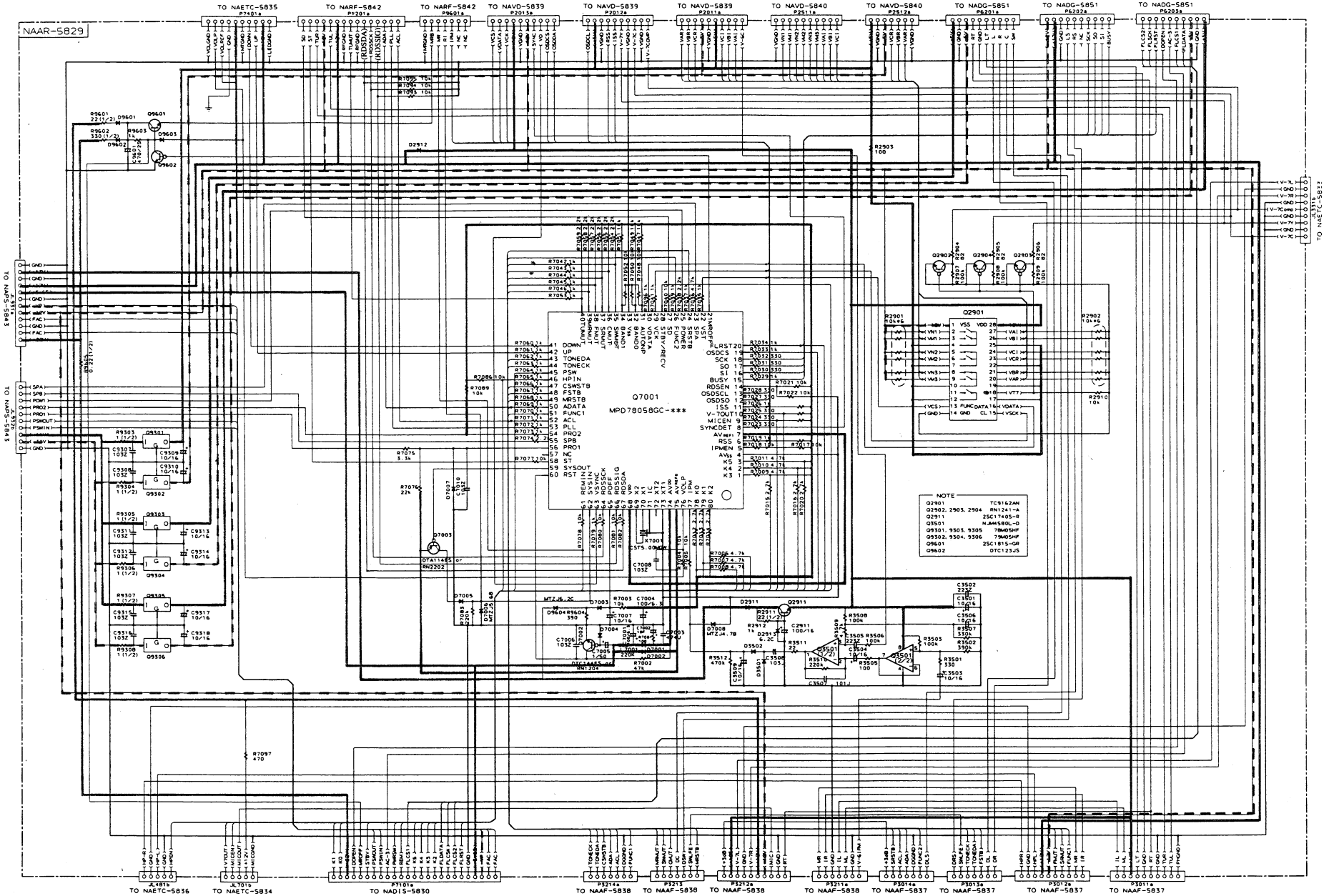
WIRING DIAGRAM



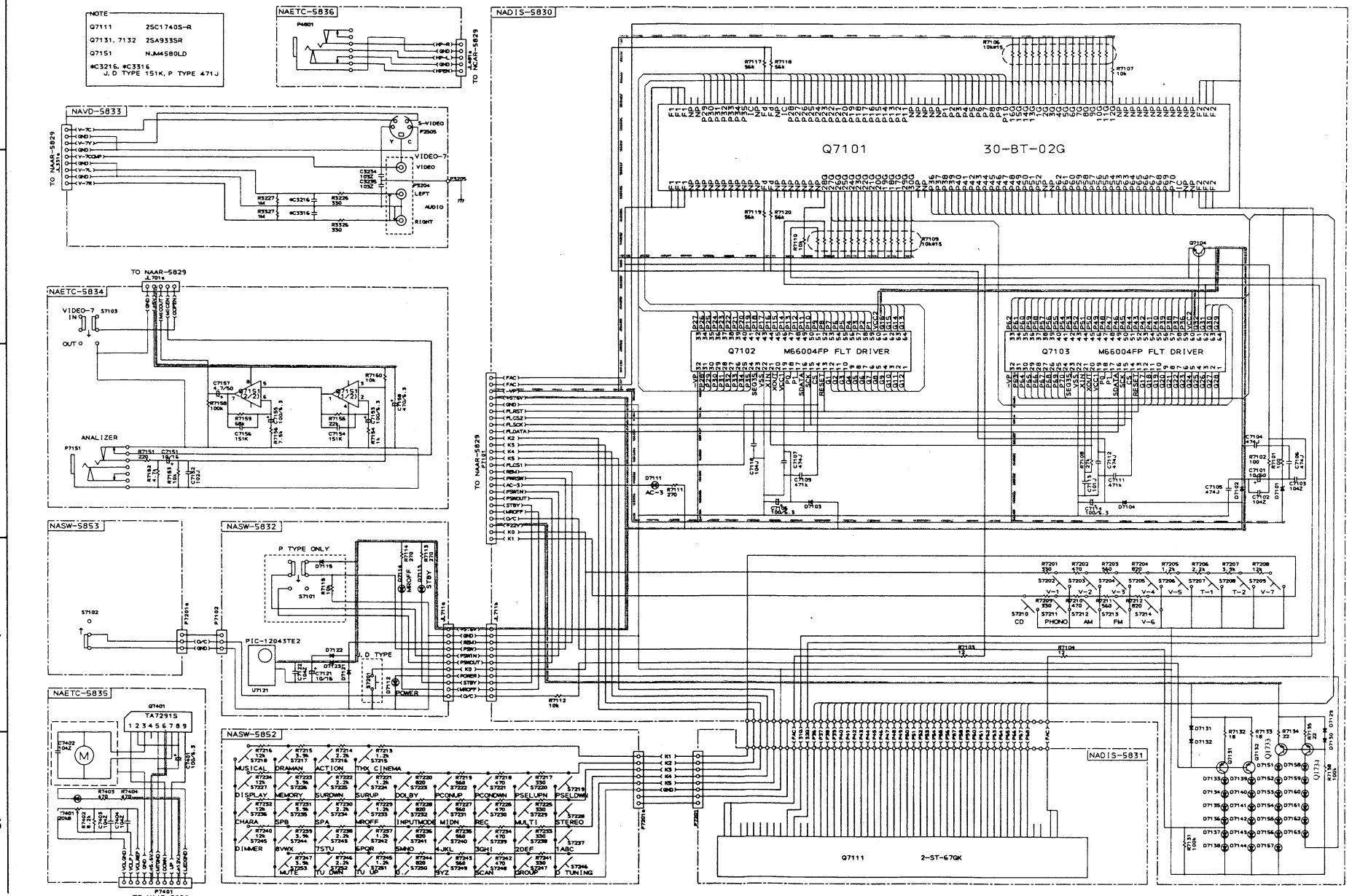
SCHEMATIC DIAGRAM 1



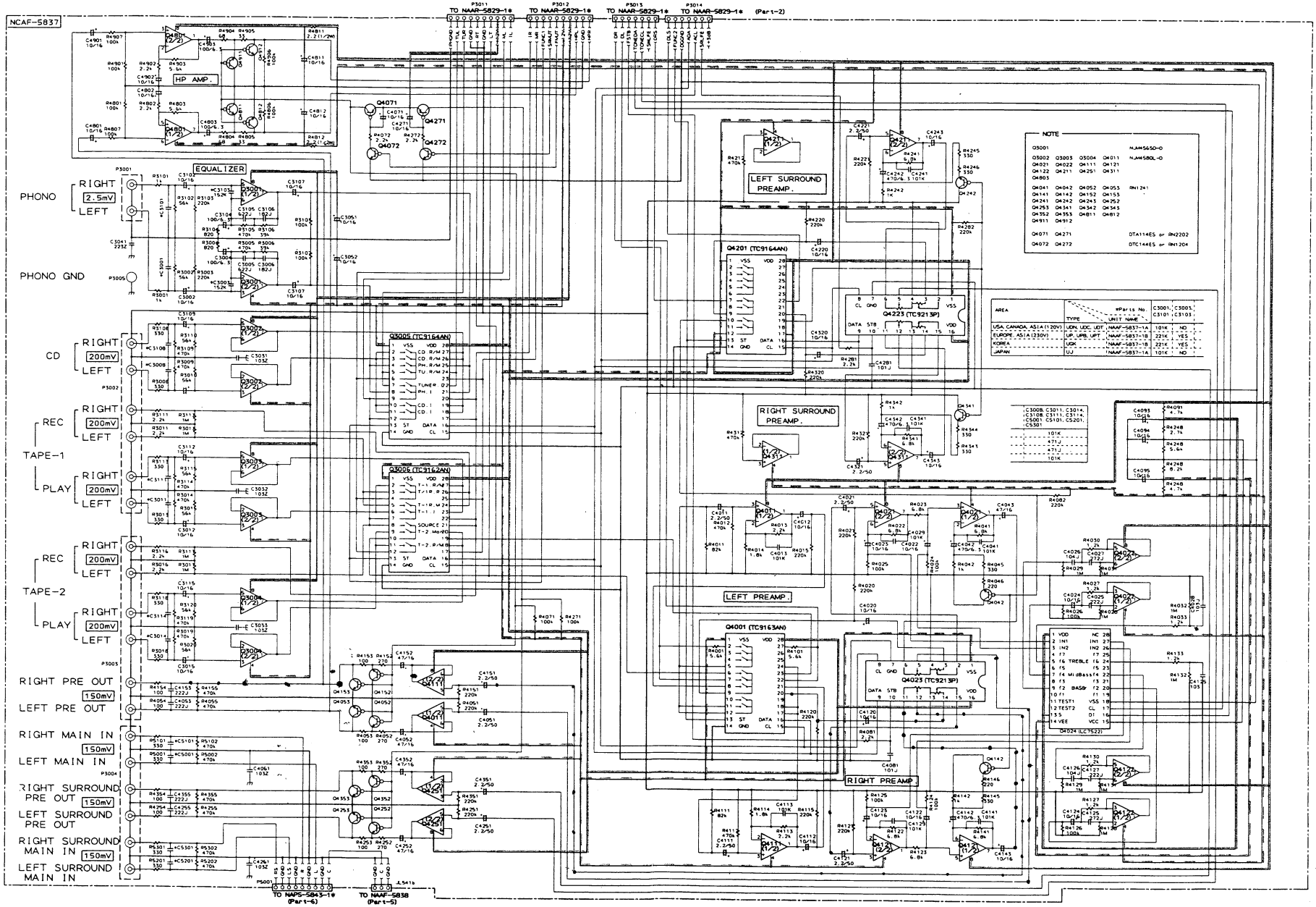
SCHEMATIC DIAGRAM 2



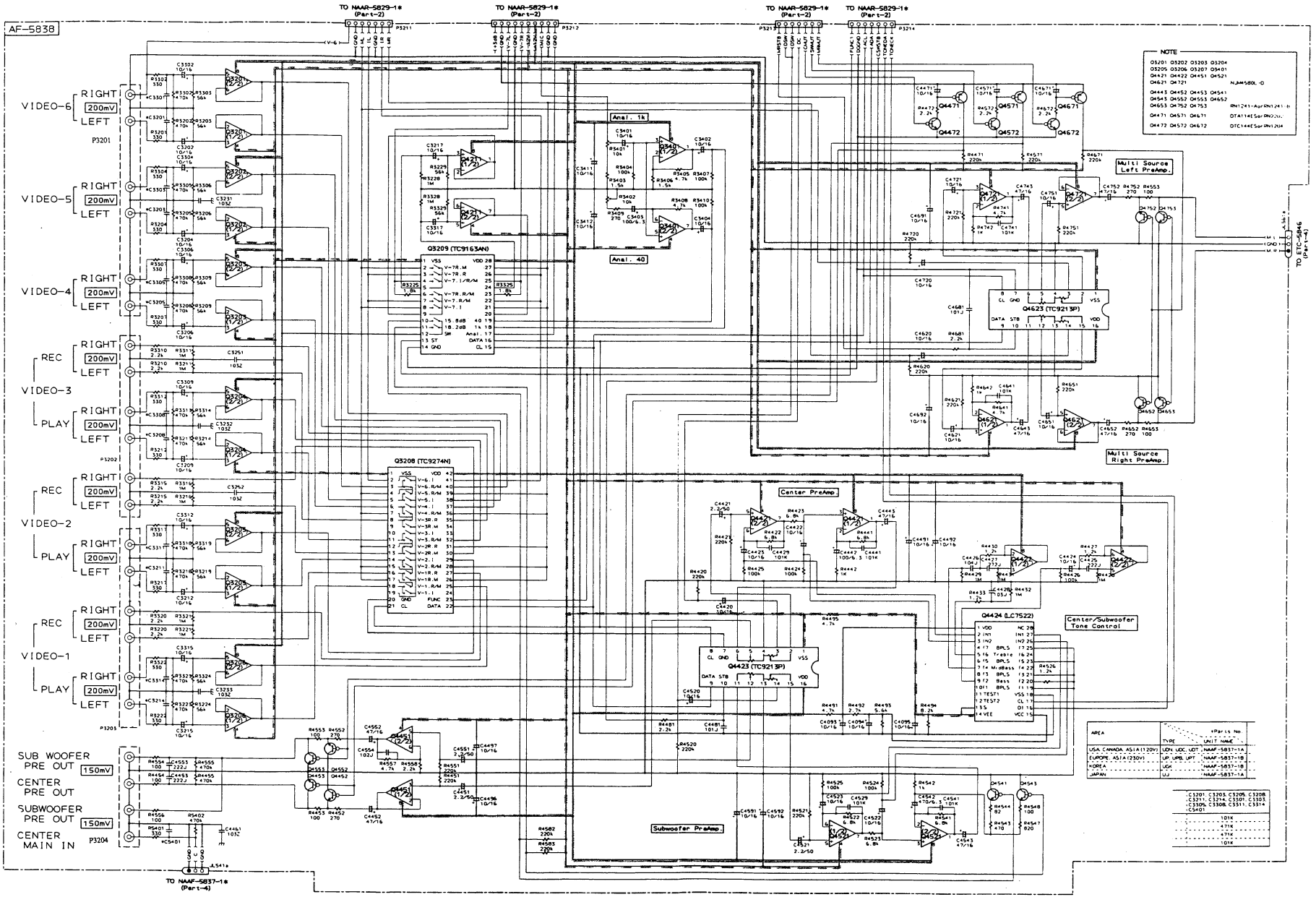
SCHEMATIC DIAGRAM 3



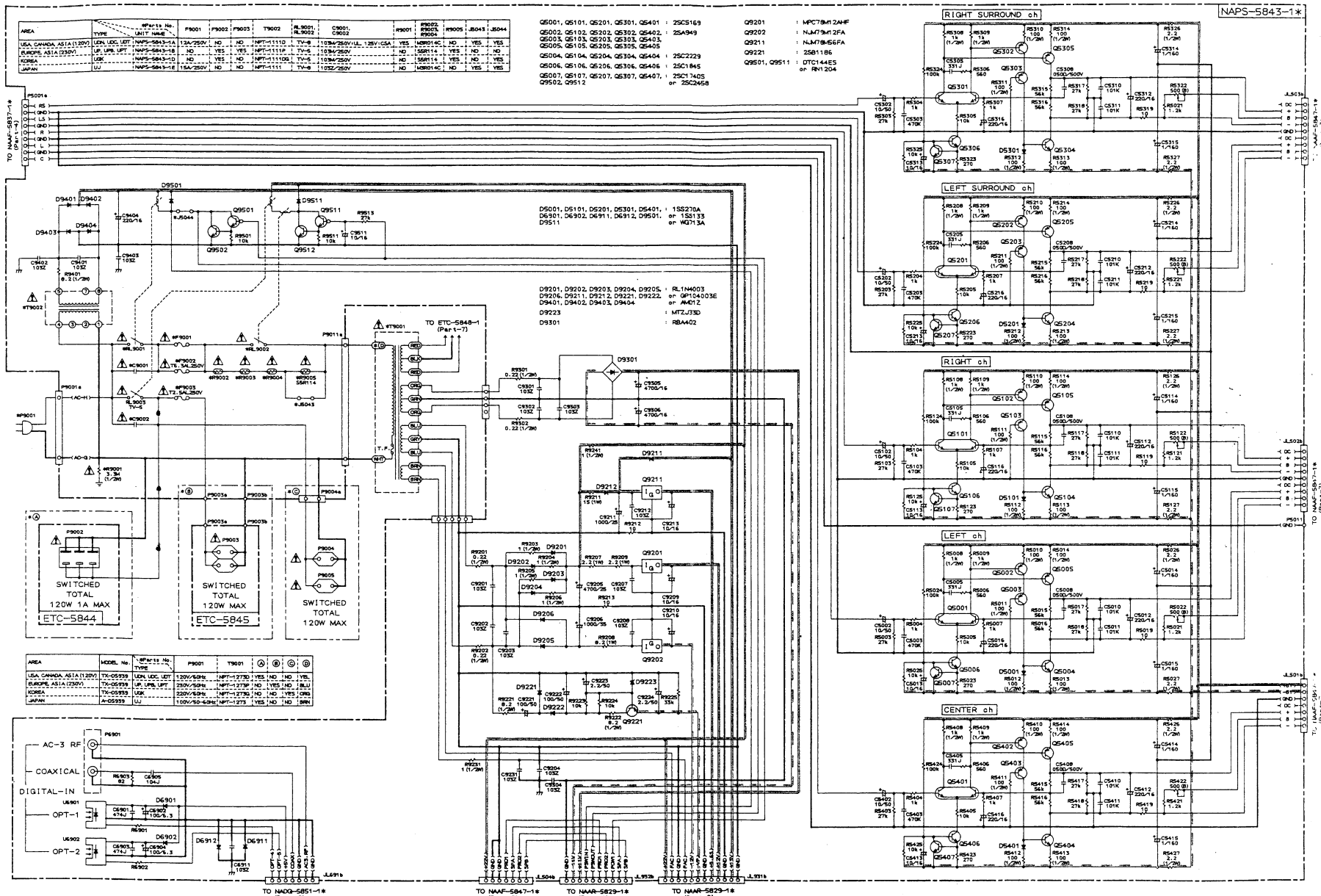
SCHEMATIC DIAGRAM 4



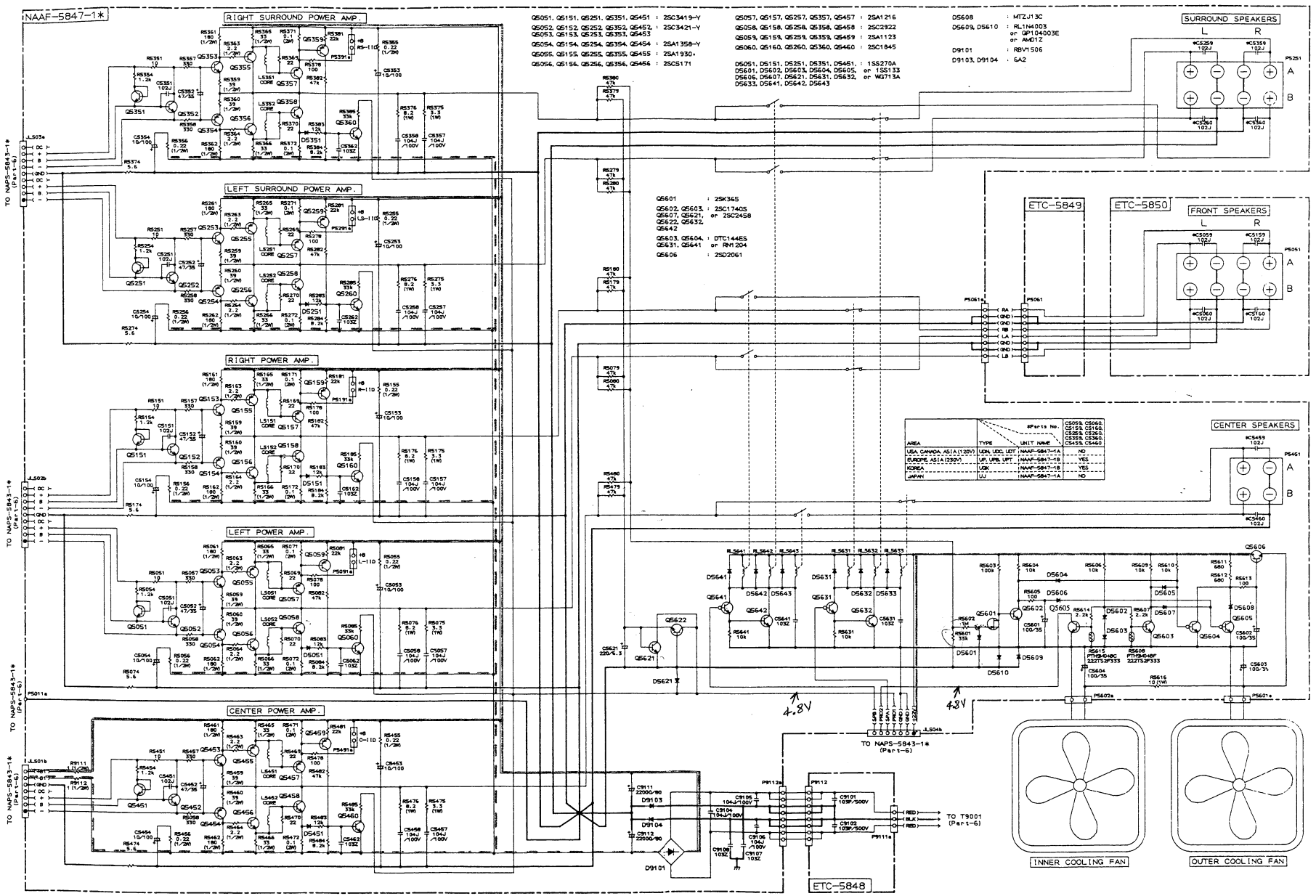
SCHEMATIC DIAGRAM 5



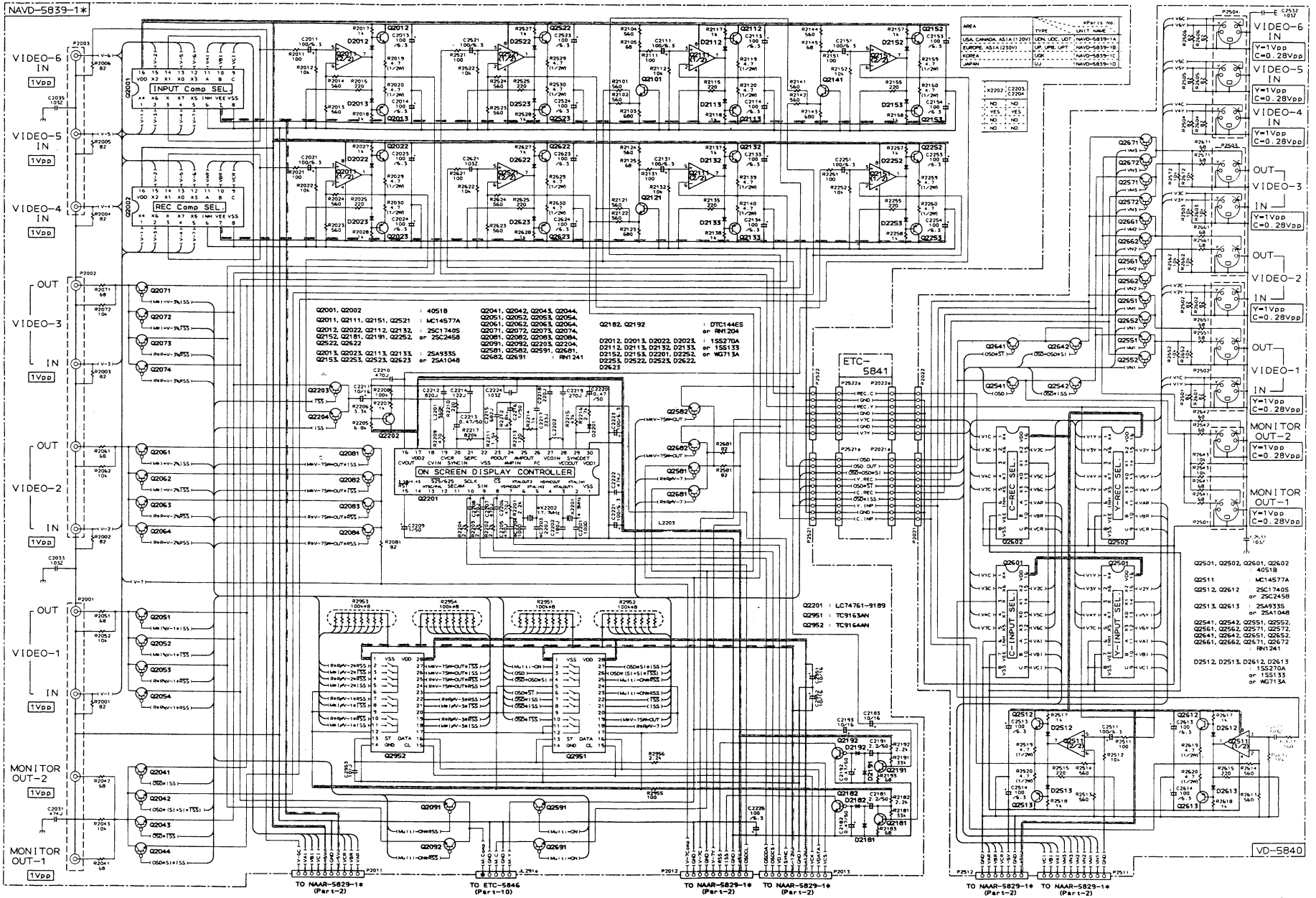
SCHEMATIC DIAGRAM 6



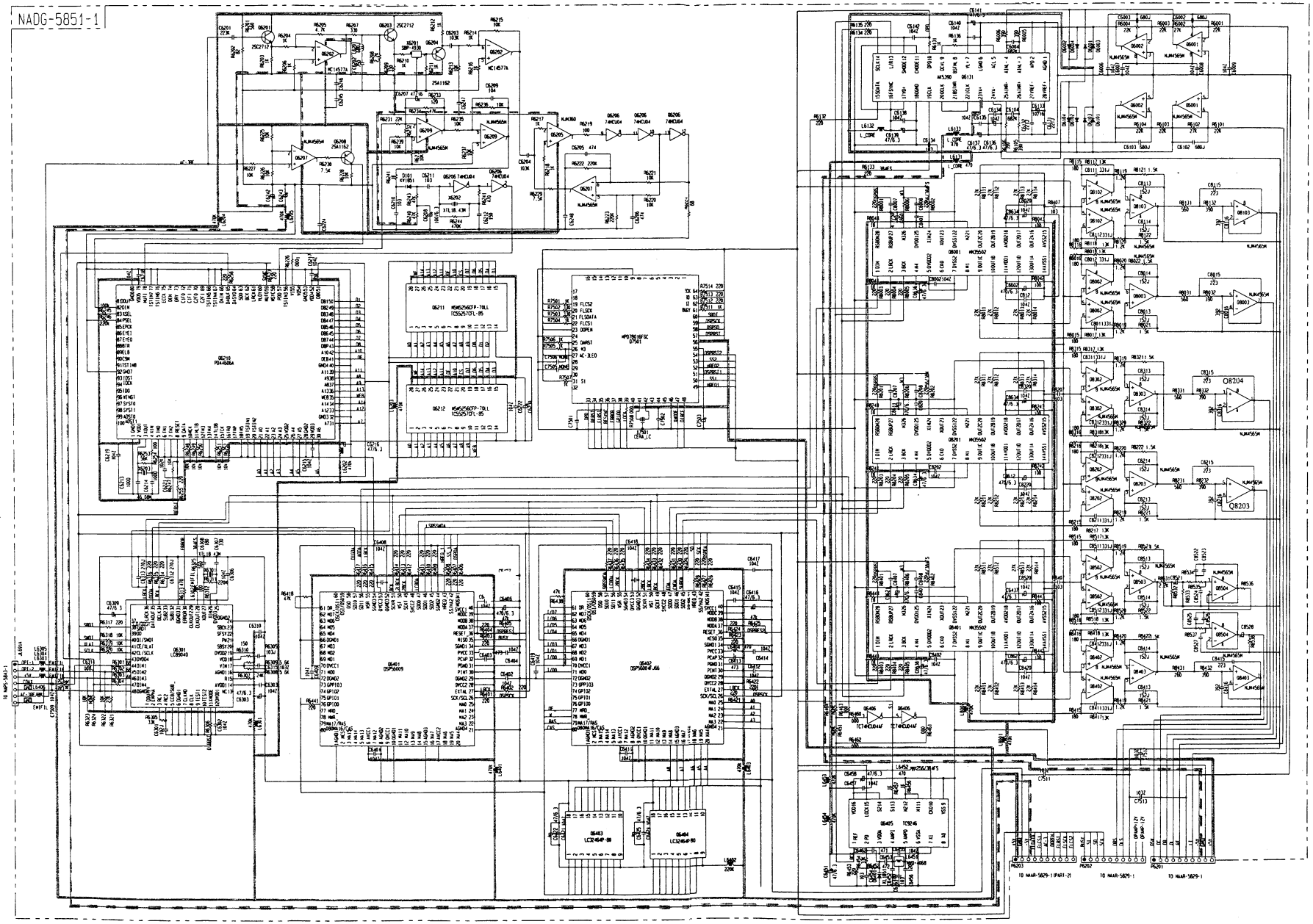
SCHEMATIC DIAGRAM 7



SCHEMATIC DIAGRAM 8



SCHEMATIC DIAGRAM 9



PRINTED CIRCUIT BOARD-PARTS LIST

TUNER CIRCUIT PC BOARD (NARF-5842-1A/1B/1C/1D)

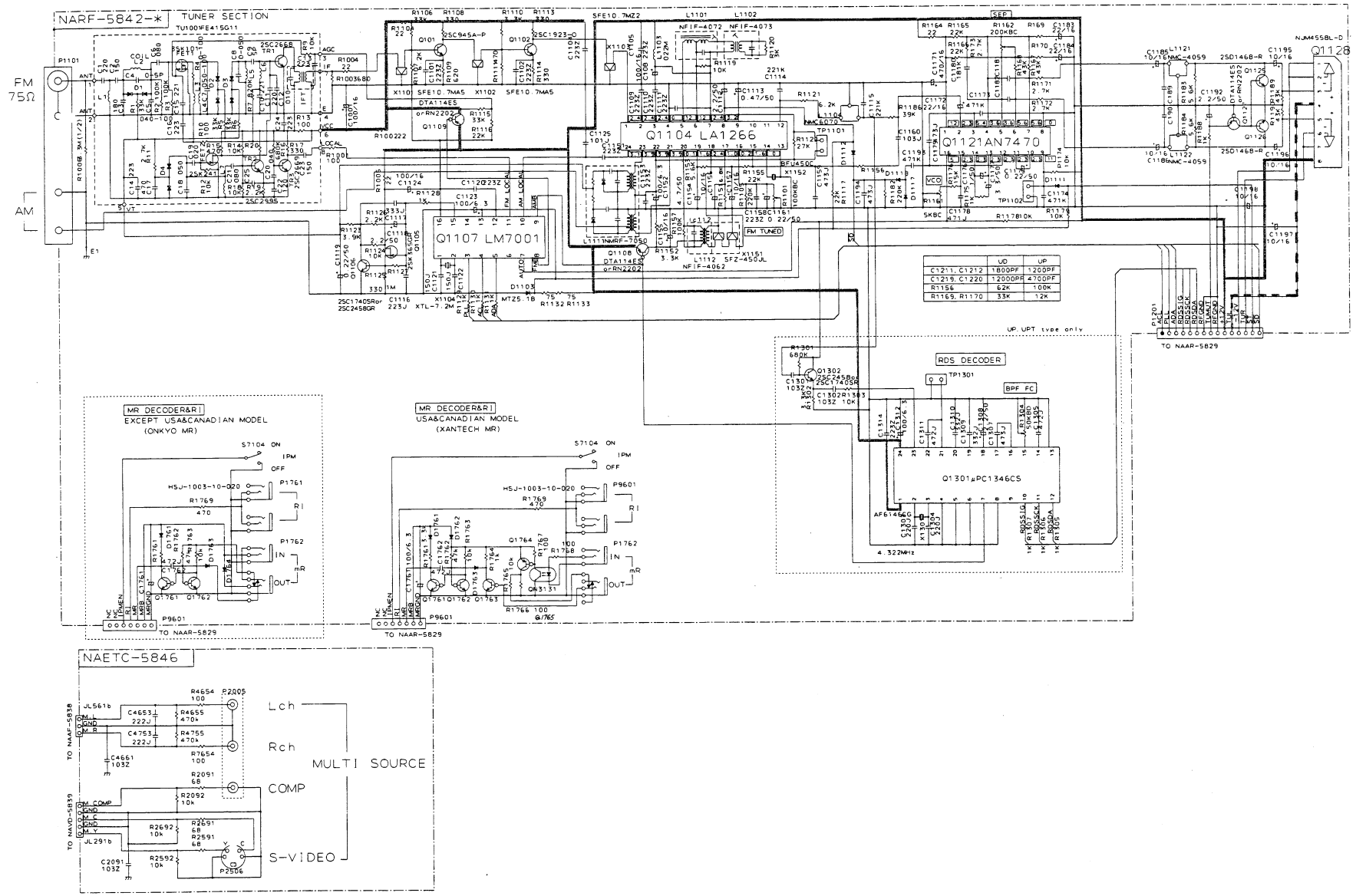
CIRCUIT NO.	PART NO.	DESCRIPTION
	Front end	
TU1001	240089	FE415-G11
	ICs	
Q1104	22240039	LA1266
Q1107	22240090	LM7001
Q1121	22240242	AN7470
Q1128	22240312	NJM4580L-D
Q1301	22240679	MPC1346CS <P>
	Transistors	
Q1101	2210746	2SC945A-P
Q1102	2211723	2SC1923-O
Q1105	2212445	2SK365-GR
Q1106,Q1302	2212115 or	2SC2458-GR or
	2213284	2SC1740S-R
Q1108,Q1109	2213510 or	DTA114ES or
Q1127	2214350	RN2202
Q1125,Q1126	2215024	2SD1468S-R
Q1761,Q1762	221282 or	DTC144ES or
	2213560	RN1204
Q1763	221282 or	DTC144ES or
	2213560	RN1204 <D>
Q1764	2213510 or	DTA114ES or
	2214350	RN2202 <D>
	Photo coupler	
Q1765	24120043	ON3131 <D>
	Diodes	
D1103	224450512	MTZ5.1B, Zener
D1111,D1112	223205,	1SS270A
D1117,D1118	223163 or	1SS133 or
D1761,D1763	223222	WG713A
D1762	223205,	1SS270A
	223163 or	1SS133 or
	223222	WG713A <D>
D1764	223205,	1SS270A
	223163 or	1SS133 or
	223222	WG713A <P/K/T>
	Transformers and coils	
L1101	233401	NFIF-4072
L1102	233402	NFIF-4073
L1103	233454K220	NCH-1452, 022M, Chock
L1104	233383	NMC-6070
L1111	232171	NMRF-5071, RF block
L1112	232139	NMIF-4062
L1121,L1122	233484	NMC-4085, MPX
	Oscillators	
X1004	3010141	XTL-7.2M, Crystal
X1301	3010203	AF6146CG, Crystal <P>
	Ceramic filters	
X1001,X1002	3010071	SFE10.7MA5, (RED)
X1003	3010130	SFE10.7MZ2A
X1151	3010123	SFZ-450JL
X1152	3010076	BFU-450C
	Capacitors	
C1001	354741019	100 μ F,16V,Elect.
C1108,C1124	354741019	100 μ F,16V,Elect.
C1112,C1118	354780229	2.2 μ F,50V,Elect.
C1113	354784799	0.47 μ F,50V,Elect.
C1117	374723334	0.033 μ F±5%,50V, Plastic
C1123,C1152	354721019	100 μ F,6.3V,Elect.
C1131	354741009	10 μ F,16V,Elect.
C1132,C1159	374724734	0.047 μ F±5%,50V, Plastic

CIRCUIT NO.	PART NO.	DESCRIPTION
	Capacitors	
C1154	354780479	4.7 μ F,50V,Elect.
C1155~C1157	354741009	10 μ F,16V,Elect.
C1160	374721034	0.01 μ F±5%,50V, Plastic
C1161	353782299	0.22 μ F,50V,Elect.
C1171	354744719	470 μ F,16V,Elect.
C1172	354742209	22 μ F,16V,Elect.
C1175	354782299	0.22 μ F,50V,Elect.
C1176	353780109	1 μ F,50V,Elect.
C1177	354780339	3.3 μ F,50V,Elect.
C1178	370134714	470pF±5%,100V, Plastic
C1179,C1194	374724734	0.047 μ F±5%,50V, Plastic
C1181,C1182	374721224	1200pF±5%,50V, Plastic <P/K/T>
C1181,C1182	374721824	1800pF±5%,50V, Plastic <D>
C1183,C1184	354742209	22 μ F,16V,Elect.
C1185,C1186	354741009	10 μ F,16V,Elect.
C1189,C1190	374721234	0.012 μ F±5%,50V, Plastic <D>
C1189,C1190	374724724	4700pF±5%,50V, Plastic <P/K/T>
C1189,C1190	374726824	6800pF±5%,50V, Plastic
C1192	354780229	2.2 μ F,50V,Elect.
C1195~C1198	354741009	10 μ F,16V,Elect.
C1305,C1311	374724724	4700pF±5%,50V, Plastic <P>
C1306	374722234	0.022 μ F±5%,50V, Plastic <P>
C1307	374724734	0.047 μ F±5%,50V, Plastic <P>
C1308	354780229	2.2 μ F,50V,Elect. <P>
C1309,C1310	374723324	3300pF±5%,50V, Plastic <P>
C1312	354721019	100 μ F,6.3V,Elect. <P>
C1761	354721019	100 μ F,6.3V,Elect.
C1762	374724724	4700pF±5%,50V, Plastic
	Resistors	
R1006	431523355	RC1/2GFK, 3.3M, Solid<D>
R1101	5210266	N06HR100KBC, Trimming
R1161	5210261	N06HR5KBC, Trimming
R1162	5210267	N06HR200KBC, Trimming
R1304	5210265	N06HR50KBC, Trimming <P>
	Terminals	
P1101	25060117 or	NTM-2PDMN051 or
	25060222	NTM-2PDML144, Antenna
P1761	25045172	HSJ-1003-01-020
P1762	25045433	HSJ-1003-01-013 <D>
P1762	25045293	HSJ-1003-01-012 <P/K/T>
	Sockets	
JL291a	25051089	NSCT-5P876
P1201	25050683	NSCT-15P487
P9601	25050675	NSCT-7P479
	Plugs	
TP1001,TP1002	25055038	NPLG-2P29
TP1301	25055038	NPLG-2P29 <P>
	Slide switch	
S7104	25065286	NSS-22112
	Shield plate	
TU101a	27150346A	

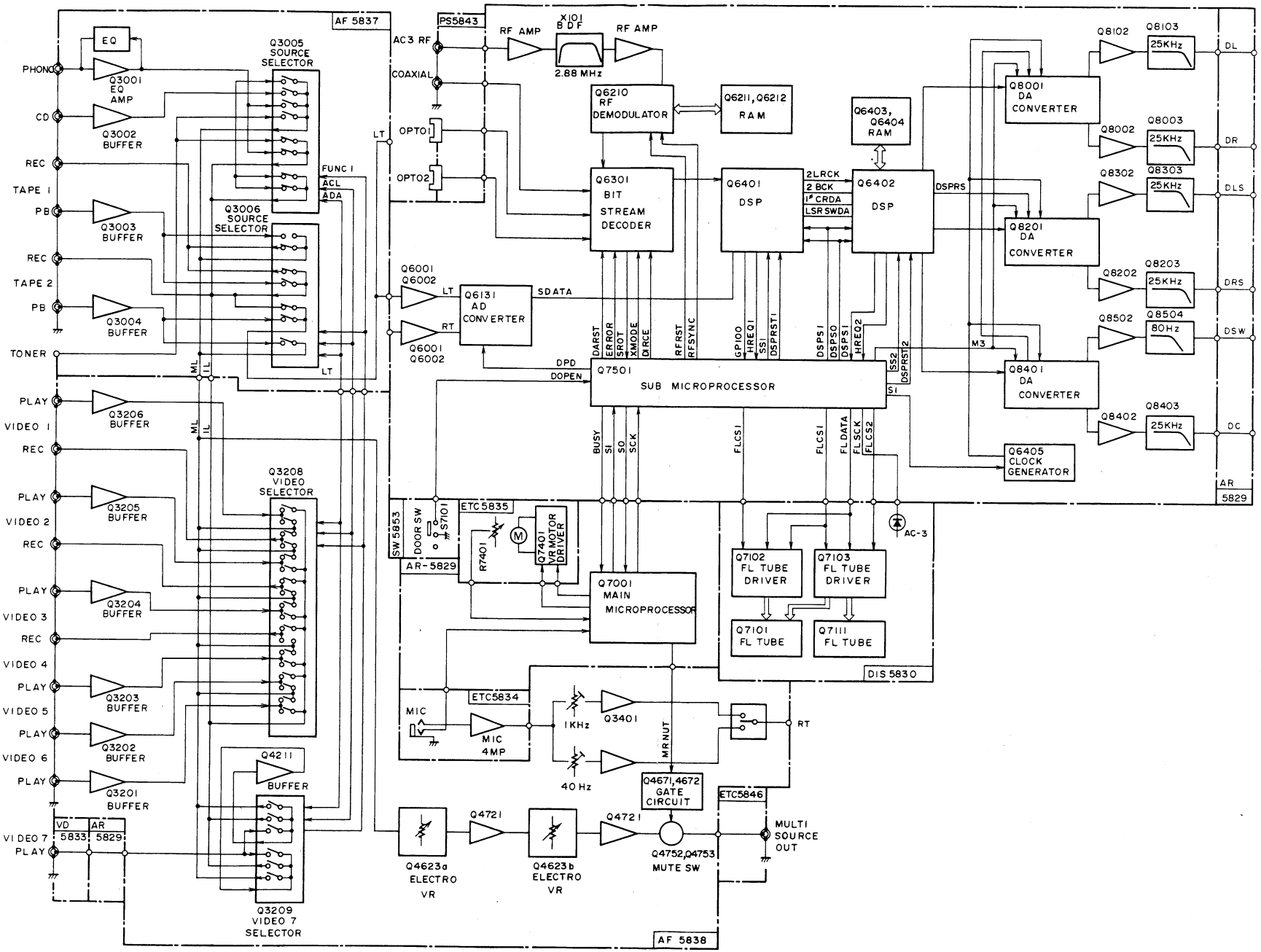
MULTI SOURCE PC BOARD (NAETC-5846-1A/1B/1D)

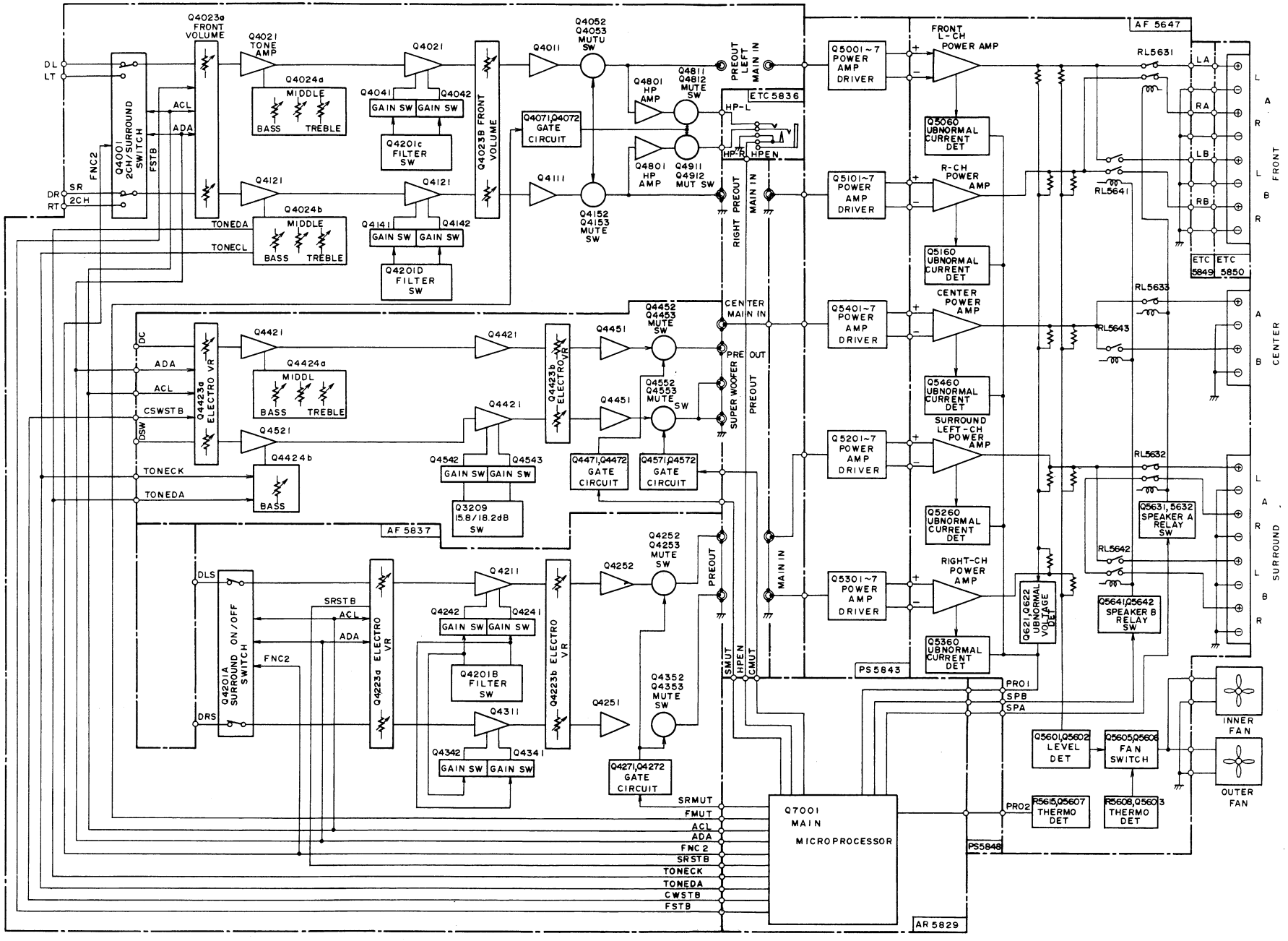
CIRCUIT NO.	PART NO.	DESCRIPTION
P2005	25045485	NPJ-3PDBL303, Terminal
P2506	25051750	NSCT-4P1537, Socket
JL291b	25055626	NPLG-5P588, Plug
JL561b	25055624	NPLG-3P586, Plug
C4653,C4753	374722224	2200pF±5%,50V, Plastic capacitors

SCHEMATIC DIAGRAM 10

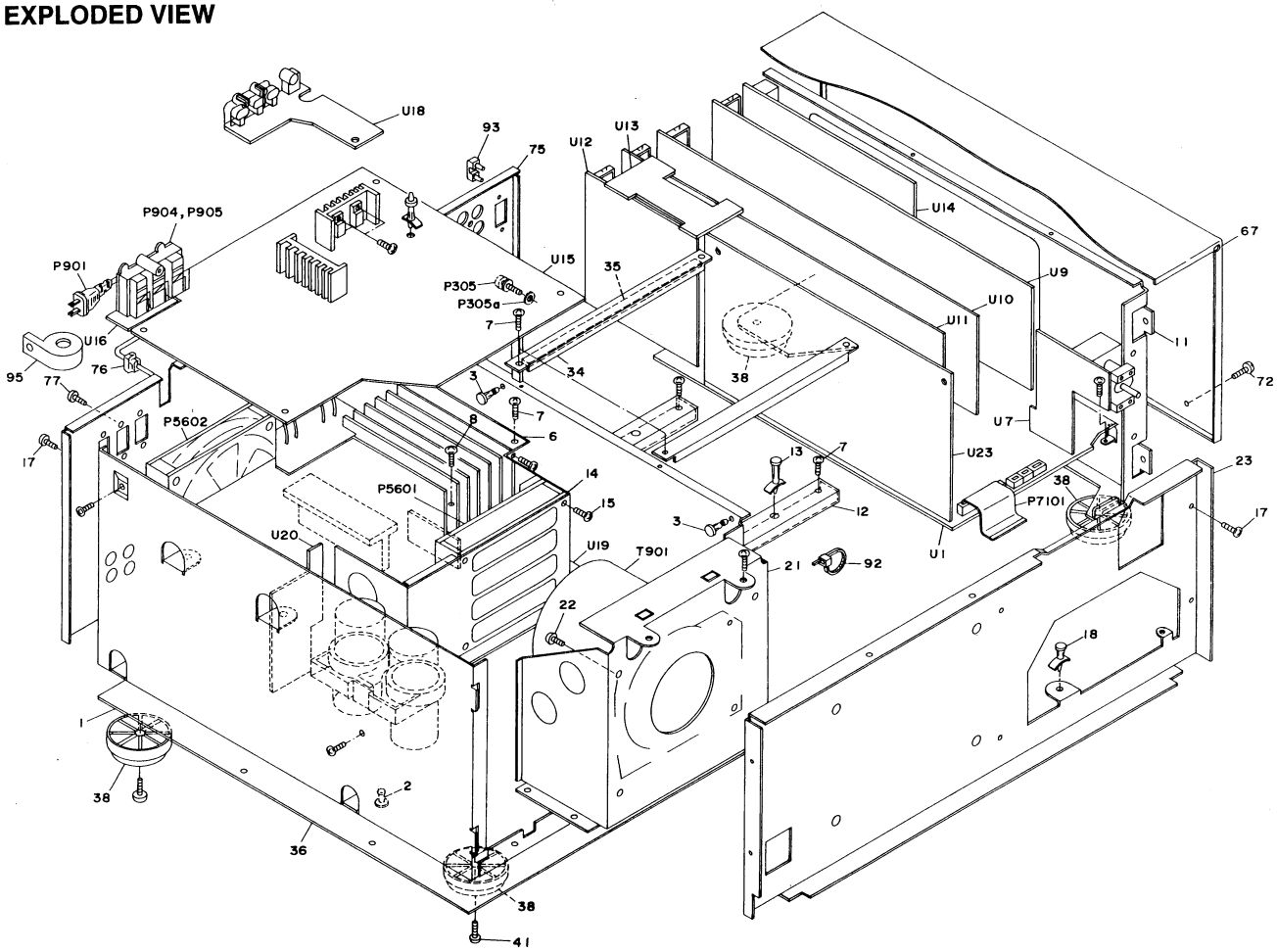


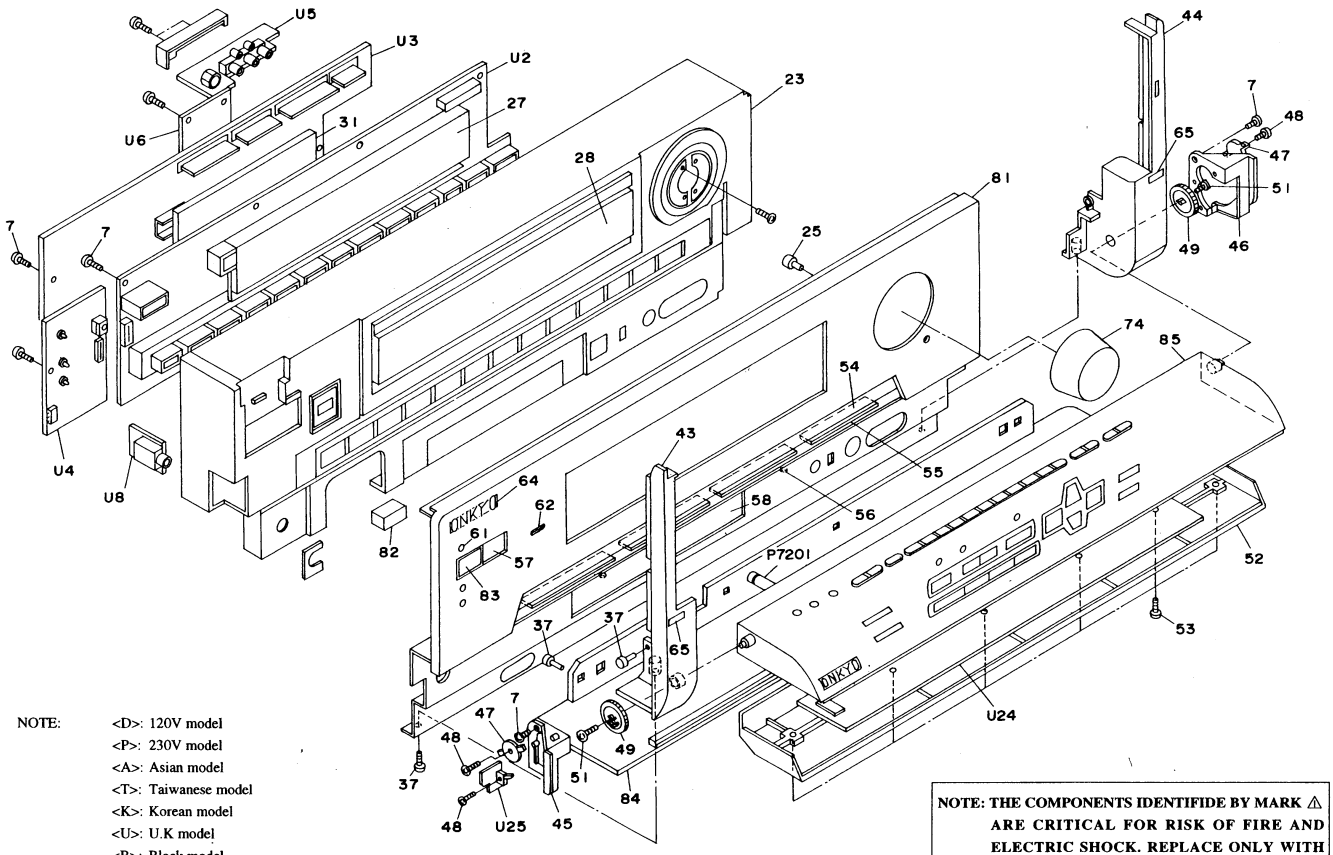
BLOCK DIAGRAM




DL
LT
DR
RT
SR
2CH
FNC2
Q4001 2CH/SURROUND SWITCH
FSTB
ACL
ADA
Q4023a FRONT VOLUME
Q4021 TONE AMP
Q4024a
MIDDLE
BASS
TREBLE
Q4041
Q4042
GAIN SW
Q4201c FILTER SW
Q4121
Q4024b
TONEDA
TONECL
Q4141
Q4142
Q4201D FILTER SW
Q4023B FRONT VOLUME
Q4071,Q4072 GATE CIRCUIT
Q4011
Q4111
Q4052 Q4053 MUTU SW
Q4152 Q4153 MUTE SW
Q4801 HP AMP
Q4811 Q4812 MUTE SW
Q4911 Q4912 MUT SW
PREOUT LEFT MAIN IN
ETC5836
HP-L
HP-R
HPEN
RIGHT PREOUT
MAIN IN
DC
DSW
Q4423a ELECTRO VR
Q4424a
Q4424b
CSWSTB
Q4521
Q4423b ELECTRO VR
Q4451
Q4452 Q4453 MUTE SW
Q4552 Q4553 MUTE SW
CENTER MAIN IN
PRE OUT
SUPER WOOFER PREOUT
Q4542
Q4543
Q3209 15.8/18.2dB SW
Q4471,Q4472 GATE CIRCUIT
Q4571,Q4572 GATE CIRCUIT
AF 5837
DLS
DRS
Q4201A SURROUND ON/OFF SWITCH
SRSTB
Q4223d ELECTRO VR
Q4223b ELECTRO VR
Q4211
Q4241
Q4242
Q4201B FILTER SW
Q4311
Q4341
Q4342
Q4252
Q4253 MUTE SW
Q4352 Q4353 MUTE SW
Q4251
Q4271,Q4272 GATE CIRCUIT
PREOUT
MAIN IN
SMUT
HPEN
CMUT
SRMUT
FMUT
ACL
ADA
FNC2
SRSTB
TONECK
TONEDA
CWSTB
FSTB
Q7001 MAIN MICROPROCESSOR
AR 5829
Q5001~7 POWER AMP DRIVER
Q5101~7 POWER AMP DRIVER
Q5401~7 POWER AMP DRIVER
Q5201~7 POWER AMP DRIVER
Q5301~7 POWER AMP DRIVER
FRONT L-CH POWER AMP
R-CH POWER AMP
CENTER POWER AMP
SURROUND LEFT-CH POWER AMP
RIGHT-CH POWER AMP
Q5060 UBNORMAL CURRENT DET
Q5160 UBNORMAL CURRENT DET
Q5460 UBNORMAL CURRENT DET
Q5260 UBNORMAL CURRENT DET
Q5360 UBNORMAL CURRENT DET
Q621,Q622 UBNORMAL VOLTAGE DET
AF 5647
RL5631
RL5641
RL5633
RL5643
RL5632
RL5642
LA
RA
LB
RB
ETC 5849
ETC 5850
Q5631,5632 SPEAKER A RELAY SW
Q5641,Q5642 SPEAKER B RELAY SW
FRONT
CENTER
SURROUND
PS5843
PS5848
PRO1
SPB
SPA
PRO2
Q5601,Q5602 LEVEL DET
Q5605,Q5606 FAN SWITCH
R5615,Q5607 THERMO DET
R5608,Q5603 THERMO DET
INNER FAN
OUTER FAN

EXPLODED VIEW





NOTE:
- <D>: 120V model
- <P>: 230V model
- <A>: Asian model
- <T>: Taiwanese model
- <K>: Korean model
- <U>: U.K model
- <B>: Black model
- <G>: Golden model

NOTE: THE COMPONENTS IDENTIFIDE BY MARK ⚠ ARE CRITICAL FOR RISK OF FIRE AND ELECTRIC SHOCK. REPLACE ONLY WITH PART NUMBER SPECIFIDE.

PARTS LIST

REF. NO.	PART NO.	DESCRIPTION
1	27100319B	Chassis
2	27190813	KGPS-10RF,Holder
3	27190428A	KGLS-10RF,Holder
4	27190983A	Holder CH
5	837440169	4TTT+16C(BC), Self-tapping screw
6	27160370	Heatsink
7	838130088	3TTB+8B, Self-tapping screw
8	838430107	3TTB+10S(BC), Self-tapping screw
11	27115259A	Side bracket
12	27130778	Bracket P
13	27190902	KGPS-16S, Holder
14	27130783	Bracket FAN
15	833150100	5TTP+10P, Self-tapping screw
16	27130779C	Bracket, shield
17	838440089	4TTB+8C(BC),Self-tapping screw
18	27190938	KGLS-8S, Holder
19	27190164	KGJS-14S, Holder
21	27130780A	Bracket PT
22	830440089	4TTC+8C(BC), Self-tapping screw
23	27110948D	Front bracket
24	28335043B	Lever, door
25	28325420B	Knob OPEN <B>
	28325421B	Knob OPEN <G>
26	27180551A	Spring
27	28133357	Back plate <B>
	28133359	Back plate <G>
28	28191747	Clear plate <B>
	28191749	Clear plate <G>
29	27180555	Spring, open
31	28133358	Back plate <B>
	28133360	Back plate <G>
32	28325418	Knob V7 <B>
	28325419	Knob V7 <G>
33	27141667A	Retainer V7
34	27130781	Bracket U
35	28141095	4*14*155, Cushion
36	27170309	Bottom board
37	838430088	3TTB+8B(BC), Self-tapping screw
38	27175317	Leg
41	831430088	3TTW+8B(BC), Self-tapping screw
42	27150396A	Shield plate
43	28125341B	End cap L <B>
43	28125343B	End cap L <G>
44	28125342B	End cap R <B>
44	28125344B	End cap R <G>
45	27301902	Holder L, damper
45	27301903	Holder R, damper
46	28400363	Damper
47	838120080	2TTB+8P, Self-tapping screw

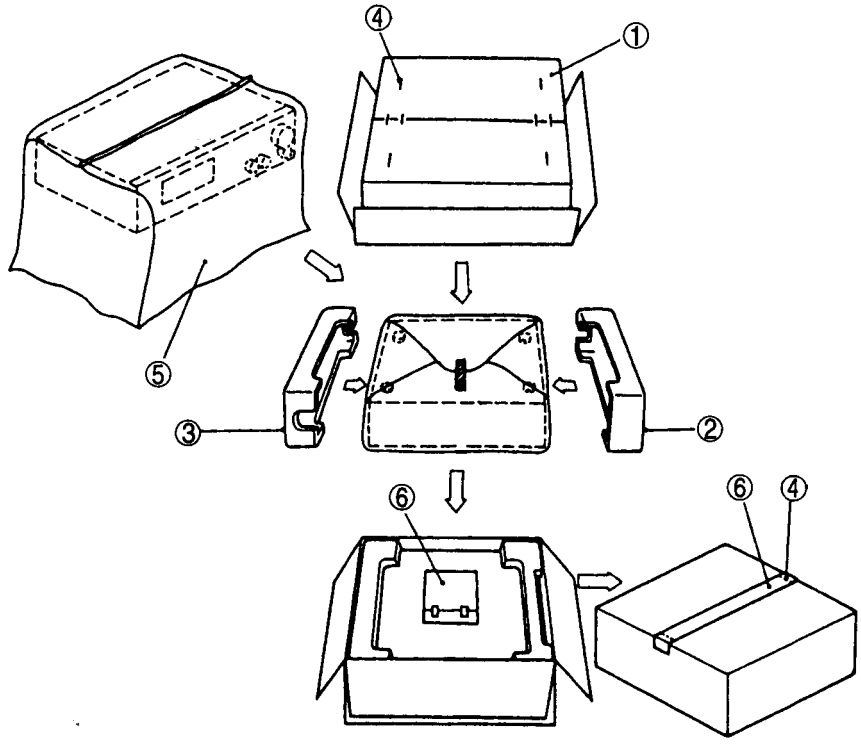
REF. NO.	PART NO.	DESCRIPTION
48	27301901	Gear
51	801433	3SMS8W.SW+14B(BC), Special screw
52	27190985B	Holder, door
53	838426088	2.6TTB+8B(BC), Self-tapping screw
54	28191749	Clear plate, selector
55	28325415A	Knob SELECTOR <B>
55	28325416A	Knob SELECTOR <G>
56	28191680A	Clear plate LED
57	28191730	Clear plate RE
58	28191748	Clear plate SUB
59	27270399	Spacer
61	28198839	Facet POW
62	28198853	Facet AC-3
63	28199201	Film
64	28135242	Badge <G>
	28135243	Badge <B>
65	28141329	0.5*5*10, Cushion
66	28140860	Cushion
67	28184660	Top cover <B>
	28184661	Top cover <G>
71	838230088	3TTB+8B(Ni), Self-tapping screw <G>
	838430088	3TTB+8B(BC), Self-tapping screw <B>
72	838240088	4TTB+8C(Ni), Self-tapping screw <G>
	838440089	4TTB+8C(BC), Self-tapping screw <B>
73	28141288	0.8*10*15, Cushion
74	28325364A	Knob VOLUME <B>
	28325365A	Knob VOLUME <G>
75	27122250C	Rear panel <D/T>
	27122251B	Rear panel <P/A>
	27122252B	Rear panel <K>
76	27300750	⚠ Bushing, cord
77	838445102	4.5STB+10BQ(BC), Self-tapping screw
78	801525	3TTB+8B(BC), Self-tapping screw
81	27211846A	Front panel <D/BT/BK>
	27211847A	Front panel <P/BA>
	27211848A	Front panel <GT/GK>
	27211908A	Front panel <GA>
82	28325409A	Knob POWER <D/BK/BT>
	28325412	Knob POWER <P/BA>
	28325414	Knob POWER <GA>
	28325410A	Knob POWER <GK/GT>
83	27267953	Guide, power <P/BA>
	27267954	Guide, power <GA>
84	28148352	Door <B>
	28148353	Door <G>
85	28325435B	Knob DOOR <D/BT/BK>
	28325436B	Knob DOOR <P/BA>
	28325437B	Knob DOOR <GA>
	28325438B	Knob DOOR <GK/GT>

REF. NO.	PART NO.	DESCRIPTION
91	29360778	Label FLASH <D>
92	260208	Wire tie
93	25055436	NPLG-2P418, Plug (Main in-Preout)
94	880009	NRP-345, Plastic rivet <P/A>
95	230915	⚠ RBD25HA-00, Core
96	250153	Shorted pin
F9001	252196	⚠ 12A-UL/T-314, Fuse <D/T>
F9002	252079	⚠ 6.3A-SE-EAK, Fuse <P/A/K>
F9003	252075	⚠ 2.5A-SE-EAK, Fuse <P/A>
P305	25060151	Terminal
P305a	87643010	W3*10F(BC), Washer
P5601,P5602	24502282	D09T-24TG10(MA), Fan
P7101	2047253012	NCFC7-253012, Flexible flat cable
P7201	2046082523	NCFC6-082523, Flexible flat cable
P901	253174Y	⚠ AS-UC-6#18, Power supply cord <D>
P901	253163Y	⚠ AS-UC-6#18, Power supply cord <T>
P901	253172	⚠ AS-CEE-2, Power supply cord <P/A>
P901	253196HIT	⚠ AS-BS, Power supply cord <U.K. model only>
P901	253240WSE	⚠ AS-KS, Power supply cord <K>
P904,P905	25051266	⚠ NSCT-2P1056, AC outlet <K>
T901	2301205	⚠ NPT-1273D, Power transformer <D/T>
T901	2301206	⚠ NPT-1273P, Power transformer <P/A>
T901	2301207	⚠ NPT-1273G, Power transformer <K>
U1	1A699529-1A	NAAR-5829-1A,Main pc board ass'y <D>
	1A699529-1B	NAAR-5829-1B,Main pc board ass'y <P/A>
	1A699529-1C	NAAR-5829-1C,Main pc board ass'y <K>
	1A699529-1D	NAAR-5829-1D, Main pc board ass'y <T>
U2	1A699530-1A	NADIS-5830-1A, Display A pc board ass'y<D/BK/BT>
	1A699530-1B	NADIS-5830-1B, Display A pc board ass'y <P/BA>
	1A699530-1C	NADIS-5830-1C, Display A pc board ass'y <GA>
	1A699530-1D	NADIS-5830-1D, Display A pc board ass'y <GT/GK>
U3	1A699531-1A	NADIS-5831-1A, Display B pc board ass'y<D/BK/BT>
	1A699531-1B	NADIS-5831-1B, Dsiplay B pc board ass'y <P/BA>
	1A699531-1C	NADIS-5831-1C, Display B pc board ass'y <GA>
	1A699531-1D	NADIS-5831-1D, Display B pc board ass'y <GT/GK>
U4	1A699532-1A	NASW-5832-1A, Power switch pc board ass'y <D/BK/BT>
	1A699532-1B	NASW-5832-1B, Power switch pc board ass'y <P/BA>
	1A699532-1C	NASW-5832-1C, Power switch pc board ass'y <GA>
	1A699532-1D	NASW-5832-1D, Power switch pc board ass'y <GT/GK>
U5	1A699533-1A	NAVD-5833-1A, Video-7 terminal pc board ass'y <D/BK/BT>
	1A699533-1B	NAVD-5833-1B, Video-7 terminal pc board ass'y <P/BA>
	1A699533-1C	NAVD-5833-1C, Video-7 terminal pc board ass'y <GA>
	1A699533-1D	NAVD-5833-1D, Video-7 terminal pc board ass'y <GT/GK>
U6	1A699534-1A	NAETC-5834-1A, Mic. circuit pc board ass'y <D/BK/BT>
	1A699534-1B	NAETC-5834-1B, Mic. circuit pc board ass'y <P/BA>
	1A699534-1C	NAETC-5834-1C, Mic. circuit pc board ass'y <GA>
	1A699534-1D	NAETC-5834-1D, Mic. circuit pc board ass'y <GT/GK>

REF. NO.	PART NO.	DESCRIPTION
U7	1A699535-1A	NAETC-5835-1A, Volume control pc board ass'y <D/BK/BT>
	1A699535-1B	NAETC-5835-1B, Volume control pc board ass'y <P/BA>
	1A699535-1C	NAETC-5835-1C, Volume control pc board ass'y <GA>
	1A699535-1D	NAETC-5835-1D, Volume control pc board ass'y <GT/GK>
U8	1A699536-1A	NAETC-5836-1A, Headphone terminal pc board ass'y <D/BK/BT>
	1A699536-1B	NAETC-5836-1B, Headphone terminal pc board ass'y <P/BA>
	1A699536-1C	NAETC-5836-1C, Headphone terminal pc board ass'y <GA>
	1A699536-1D	NAETC-5836-1D, Headphone terminal pc board ass'y <GT/GK>
U9	1A699537-1A	NAAF-5837-1A, Audio terminal pc board ass'y <D/T>
	1A699537-1B	NAAF-5837-1B, Audio terminal pc board ass'y <P/A/K>
U10	1A699538-1A	NAAF-5838-1A, Video terminal pc board ass'y <D/T>
	1A699538-1B	NAAF-5838-1B, Video terminal pc board ass'y <P/A/K>
U11	1A699539-1A	NAVD-5839-1A, Video circuit pc board ass'y <D>
	1A699539-1B	NAVD-5839-1B, Video circuit pc board ass'y <P/A>
	1A699539-1C	NAVD-5839-1C, Video circuit pc board ass'y <K>
	1A699539-1D	NAVD-5839-1D, Video circuit pc board ass'y <T>
U12	1A699540-1A	NAVD-5840-1A, S video terminal pc board ass'y <D>
	1A699540-1B	NAVD-5840-1B, S video terminal pc board ass'y <P/A>
	1A699540-1C	NAVD-5840-1C, S video terminal pc board ass'y <K>
	1A699540-1D	NAVD-5840-1D, S video terminal pc board ass'y <T>
U13	1A699541-1A	NAETC-5841-1A, Terminal pc board ass'y <D>
	1A699541-1B	NAETC-5841-1B, Terminal pc board ass'y <P/A>
	1A699541-1C	NAETC-5841-1C, Terminal pc board ass'y <K>
	1A699541-1D	NAETC-5841-1D, Terminal pc board ass'y <T>
U14	1A699542-1A	NARF-5842-1A, Tuner circuit pc board ass'y <D>
	1A699542-1B	NARF-5842-1B, Tuner circuit pc board ass'y <P/A>
	1A699542-1C	NARF-5842-1C, Tuner circuit pc board ass'y <K>
	1A699542-1D	NARF-5842-1D, Tuner circuit pc board ass'y <T>
U15	1A699543-1A	NAPS-5843-1A, Power supply circuit pc board ass'y <D/T>
	1A699543-1B	NAPS-5843-1B, Power supply circuit pc board ass'y <P/A>
	1A699543-1D	NAPS-5843-1D, Power supply circuit pc board ass'y <K>
U16	1A699544-1B	NAETC-5844-1B, AC outlet pc board ass'y <P/A>
U17	1A699545-1B	NAETC-5845-1B, AC outlet pc board ass'y <P/A>
U18	1A699546-1A	NAETC-5846-1A, Multi source pc board ass'y <D/T>
	1A699546-1B	NAETC-5846-1B, Multi source pc board ass'y <P/A>
	1A699546-1D	NAETC-5846-1D, Multi source pc board ass'y <K>
U19	1A699547-1A	NAAF-5847-1A, Power amplifier pc board ass'y <D/T>
	1A699547-1B	NAAF-5847-1B, Power amplifier pc board ass'y <P/A/K>
U20	1A699548-1A	NAETC-5848-1A, Secondary circuit pc board ass'y <D/T>
	1A699548-1B	NAETC-5848-1B, Secondary circuit pc board ass'y <P/A/K>
U21	1A699549-1A	NAETC-5849-1A, Terminal pc board ass'y <D/T>
	1A699549-1B	NAETC-5849-1B, Terminal pc board ass'y <P/A/K>
U22	1A699550-1A	NAETC-5850-1A, Front speaker pc board ass'y <D/T>
	1A699550-1B	NAETC-5850-1B, Front speaker pc board ass'y <P/A/K>
U23	1A699551-1	NADG-5851-1, DSP circuit pc board ass'y
U24	1A699552-1	NASW-5852-1,Operation switch pc board ass'y
U25	1A699553-1	NASW-5853-1,Door switch pc board ass'y

NOTE: TX-DS939BUP and TX-DS939BUPB have the same construction except the power supply cord.

PACKING VIEW



REF. NO.	PART NO.	DESCRIPTION
1	29053046	Carton box <D/T>
	29053047	Carton box <P/A/U/K>
	29053049	Carton box <G>
2	29091745A	Pad L
3	29091746A	Pad R
4	282320	Staple
5	29100035-1	Poly bag
6	24140310	RC-310M,Remote control transmitter
	3010054	UM-3,Battery
	245015	MIC-3,Microphone
	232140	NMA-3057,AM loop antenna
	292112Y	FM antenna
	29100097-1AY	Poly bag
ⓒ	29355256	Caution sheet
	29342340	Instruction manual
	29342341	Instruction manual GFS <P>
	29342342	Instruction manual DSWI <P>
	29342344	Instruction manual T <A/T>
	29342463	Instruction manual
	29342464	Instruction manual FSI <P>
	29342465	Instruction manual GSWD <P>
	29342466	Instruction manual T <T>
	29355268	Instruction sheet
	25065462	YAE21-0237, FM antenna adaptor <D/A/T/K>
	29361981	Label UPC <D>
	29358002K	Service station list <D>
	29365019B	Warranty card <D>
	29355133A	Instruction sheet <P>
	29361573	Label PE-LD <P>
	29095777	Sheet <G>
	29362036	Label Ex

NOTE:
<D>: 120V model
<P>: 230V model
<A>: Asian model
<T>: Taiwanese model
<K>: Korean model
<U>: U.K model
<B>: Black model
<G>: Golden model